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GOVERNMENT'S EXHIBITS*

GX Exhibits 1 through 294 were all offered and received on page A.285 [T.I,108] and are described on the Government Exhibit list.

GX	Offered	Received	Description
206-A	A.534 [T.V,63]	A.534 [T.V,63]	Map indicating Hankinson and Elbow Lake.
206-B	A.903 [T.IX,95]	A.904 [T.IX,95]	Map.
295	A.288 [T.I,111]	A.288 [T.I,112]	Elbow Lake Council Minutes, 9/8/62.
296	A.289 [T.I,113]	A.291 [T.I,116]	Various Elbow Lake Council Minutes from 6/6/60 to 5/7/65.
297	A.294 [T.I,120]	A.295 [T.I,121]	Letter, Martinson to Wolter, 7/8/65.
298	A.294 [T.I,120]	A.295 [T.I,121]	Letter, Wolter to Martinson, 8/10/65.

* This list of Exhibits and their descriptions is compiled from the introductory pages of each volume of the Transcript prepared by the Court Reporter.

GOVERNMENT'S EXHIBITS

GX	Offered	Received	Description
299	A.298 [T.I,126]	A.298 [T.I,126]	Electric power case study for Village of Elbow Lake.
300, 301	A.315 [T.II,4]	A.315 [T.II,4]	Letters Re: Colman.
302, 303	A.315 [T.II,4]	A.315 [T.II,4]	Letters Re: Alexandria.
304, 305, and 306	A.319 [T.II,13]	A.319 [T.II,13]	Letters between Elbow Lake and Basin Electric.
307	A.332 [T.II,32]	A.332 [T.II,32]	Contract for electric service, Bureau of Reclamation and Colman.
308	A.332 [T.II,32]	A.332 [T.II,32]	Re: Litigation
309	A.332 [T.II,32]	A.332 [T.II, 32]	Report of Buell & Winter, Minutes of City Council of Colman.
311 thru 317	A.344 [T.II,49]	A.344 [T.II,49]	Exhibits Re: Woytassek's testimony.
318 thru 329	A.361 [T.II,75]	A.361 [T.II,75]	Exhibits Re: Waples' testimony.

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GX	Offered	Received	Description
330	A.376 [T.II,97]	A.376 [T.II,97]	Letter from Bartel.
331	A.376 [T.II,97]	A.376 [T.II,97]	Waples, Minutes.
332 thru 338	A.376 [T.II,97]	A.376 [T.II,97]	Waples, Letters.
339	Withdrawn		
340	A.376 [T.II,97]	A.376 [T.II,97]	Waples, Letter.
341	A.376 [T.II,97]	A.376 [T.II,97]	Waples, Agreement.
342	A.376 [T.II,97]	A.376 [T.II,97]	Waples, Letter.
343	A.376 [T.II,97]	A.376 [T.II,97]	Waples, Contract.
344 thru 348	A.379 [T.II,101]	A.379 [T.II,101]	Perino, Letters.
349	A.381 [T.II,104]	A.381 [T.II,104]	Hickerson, Letter.
350 thru 356	A.383 [T.II,107]	A.384 [T.II,110]	Re: George Danforth.
357, 358	A.400 [T.III,10]	A.404 [T.III,14]	Letters by Holten to Woytassek and Healey.

GOVERNMENT'S EXHIBITS

GX	Offered	Received	Description
359 thru 371	A.400 [T.III,10]	A.404 [T.III,14]	Letters by Holten Re: City of Colman.
372	A.400 [T.III,10]	A.404 [T.III,14]	"Signature Certificate".
373	A.400 [T.III,10]	A.404 [T.III,14]	"Faegre and Benson" "$95,000 Electric Revenue Bonds of 1964, City of Colman."
374 thru 426	A.414 [T.III,28]	—	—
374 thru 434	A.479 [T.IV,69]		
374 thru 378		A.487 [T.IV,82]	Exhibits 374 thru 434 described on Government's Exhibit list.
419 thru 426		A.487 [T.IV,82]	
428		A.487 [T.IV,82]	
431 thru 434		A.487 [T.IV,82]	

GOVERNMENT'S EXHIBITS

GX	Offered	Received	Description
435	A.495 [T.V,7]	A.495 [T.V,7]	Systems Map Central Power Coop.
436	A.495 [T.V,7]	A.495 [T.V,7]	Systems Map UPA.
437	A.495 [T.V,7]	A.495 [T.V,7]	Systems Map CPA.
438	A.495 [T.V,7]	A.495 [T.V,7]	Systems Map East River Cooperative.
439	A.498 [T.V,11]	A.508 [T.V,27]	Transmissions Map Otter Tail Service Area.
440	A.512 [T.V,32]	A.512 [T.V,32]	Transmissions Map Otter Tail Service Area.
441	A.512 [T.V,32]	A.513 [T.V,33]	Otter Tail Report Filed 1970 with FPC.
442	A.512 [T.V,32]	A.513 [T.V,33]	Otter Tail Report Filed 1960 with FPC.
443	A.514 [T.V,35]	A.515 [T.V,36]	Bureau of Reclamation Map 1970, Missouri River Basin Power System.
444	A.769 [T.VIII,16]	A.769 [T.VIII,16]	Statement of A. V. Hartl.

GOVERNMENT'S EXHIBITS

GX	Offered	Received	Description
445	A.817 [T.VIII,86]	A-817 [T.VIII,86]	Speech by A. V. Hartl 11-18-70.
446	A.975 [T.X,80]	A.975 [T.X,80]	Government Exhibit List, Exhibits 1 thru 294.
447	A.975 [T.X,80]	A.975 [T.X,80]	Government Exhibit List, Exhibits 374 thru 434.

DEFENDANT'S EXHIBITS

DX	Offered	Received	Description
1	A.291 [T.I,116]	A.291 [T.I,116]	Elbow Lake Council Minutes, 8/7/61.
2	A.291 [T.I,116]	A.291 [T.I,116]	Elbow Lake Council Minutes, 8/17/61.
3	A.291 [T.I,117]	A.291 [T.I,117]	Elbow Lake Council Minutes, 6/4/62.
4	A.291 [T.I,117]	A.291 [T.I,117]	Elbow Lake Council Minutes, 8/6/62.
5	A.292 [T.I,117]	A.292 [T.I,117]	Elbow Lake Council Minutes, 6/7/65.

DEFENDANT'S EXHIBITS

DX	Offered	Received	Description
6	A.320 [T.II,14]	A.320 [T.II,14]	Letter by Nye to Village of Elbow Lake.
7 & 8	A.325 [T.II,21]	A.325 [T.II,21]	Letters to Martinson.
9	A.359 [T.II,71]	A.359 [T.II,71]	Letter by Woytassek.
10 & 11	A.356 [T.II,66]	A.356 [T.II,66]	Letters.
12	A.356 [T.II,66]	A.356 [T.II,66]	Minutes.
13	A.356 [T.II,66]	A.356 [T.II,66]	Letter, 2-14-64.
14	A.356 [T.II,66]	A.356 [T.II,66]	Articles of Incorporation.
15	A.356 [T.II,66]	A.356 [T.II,66]	Bylaws.
16	A.367 [T.II,83]	A.367 [T.II,83]	Contract.
17 & 18	A.367 [T.II,83]	A.367 [T.II,83]	Agreements.
19	A.368 [T.II,84]	A.368 [T.II,84]	Letter.
20	—	—	Same as GX242
21	—	—	Same as GX247
22	A.416 [T.III,32]	A.417 [T.III,32]	
22	Withdrawn on A.429 [T.III,50]		Same as GX237

DEFENDANT'S EXHIBITS

DX	Offered	Received	Description
23	A.460 [T.IV,43]	A.460 [T.IV,43]	July, 1970, Booklet published by Missouri Basin Systems Group.
24	A.460 [T.IV,43]	A.460 [T.IV,43]	North Central Power Study.
25 thru 37	A.489 [T.IV,85]	A.489 [T.IV,86]	Campaign material.
38	Marked for Identification A.503 [T.V,19]		
38	A.610 [T.VI,51]	A.611 [T.VI,52]	Source Map.
39	A.610 [T.VI,52]	A.611 [T.VI,52]	Source Map.
40	A.726 [T.VII,81]	A.727 [T.VII,81]	Otter Tail Chart.
41	A.738 [T.VII,97]	A.739 [T.VII,97]	Otter Tail Chart.
88	A.825 [T.VIII,98] (See A.826 [T.VIII,99].)	A.825 [T.VIII,98]	Engineering Study.
42 thru 87	A.850 [T.IX,18]	A.850 [T.IX,18]	Documentation of cases in area of litigation.
89	A.840 [T.IX,4]	A.840 [T.IX,4]	List of REA cooperatives.

DEFENDANT'S EXHIBITS

DX	Offered	Received	Description
90	A.851 [T.IX,19]	A.851 [T.IX,19]	1969 REA Statistical Report.
91	A.857 [T.IX,28]	A.858 [T.IX,30]	Excerpts from Exhibit GX-2.
92	A.861 [T.IX,35]	A.864 [T.IX,39]	Map.
93	A.861 [T.IX,35]	A.864 [T.IX,39]	Map.
94	A.873 [T.IX,52]	A.873 [T.IX,52]	Study of Power Supply, Area 26.
95	A.933 [T.X,21]	A.938 [T.X,28]	Study and schedules of Dr. Morton.
96	A.952 [T.X,47]	A.952 [T.X,48]	Study and schedules of Dr. Morton.
97	A.958 [T.X,56]	A.958 [T.X,56]	Study and schedules of Dr. Morton.
98	A.975 [T.X,81]	A.976 [T.X,82]	List of towns served by Co-operatives at retail.

DX99—Letter from East River to Elbow Lake. Added to record by Order dated Nov. 8, 1971 ..... A.1211

Otter Tail Dep. Ex. A—Army Engineers' study. Offered and received in evidence at A.315 [T.II,6,7] A.1214

Chart Submitted by the United States—Included in Record by Order dated July 5, 1972 ..... A.1219

The Court: Thank you, gentlemen, for a nice visitation and education about electric power this week. See you next Monday at 10:00.

(Whereupon, a recess was taken until 10:00 o'clock a.m., June 7, 1971.)

[T. V, 1]

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
SIXTH DIVISION

(Title Omitted in Printing)

The above-entitled matter came on for trial before the Honorable Edward J. Devitt, Chief Judge of the above-entitled Court at Saint Paul, Minnesota, commencing at 10:00 o'clock A.M., June 1, 1971.

The following transcript contains the proceedings of June 7, 1971.

(Appearances as heretofore noted.)

* * * * *

[T. V, 2] June 7, 1971, 10:00 o'clock A.M.

The Court: Good morning, gentlemen.

Mr. Anderson: Your Honor, the government calls Mr. William Trommershausen as its last witness.

Whereupon,

WILLIAM E. TROMMERSHAUSEN,

a witness called by and on behalf of the government, being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Anderson:

Q. Would you give us your address, Mr. Trommershausen?

A. My residence address is 1421 Sunset Boulevard, Boulder, Colorado.

Q. And would you very briefly give us your educational background, Mr. Trommershausen?

A. I am a graduate with a BS Degree in Electrical Engineering from Oregon State College in 1963.

Q. Are you a registered engineer, Mr. Trommershausen?

A. Yes, sir. I am registered in my state of residence, Colorado, in the State of Minnesota and in 12 other states.

Q. Now, could you trace for the Court your professional experience in electrical engineering work in a brief way, [T. V, 3] Mr. Trommershausen?

A. Since graduation in 1963, I have served in planning, design, construction, supervision of operation and maintenance and management of electric utility systems.

Upon graduation from college I served three years with the Rural Electrification Administration; then 15 years with the Bonneville Power Administration in both engineering and management positions. During Military Service in World War II, I served as a rehabilitation engineer on hydroelectric projects and associated transmission facilities in Austria and Italy.

I joined R. W. Beck and Associates, a consulting engineering firm in 1955 and have served in the firm's offices at

Seattle, Washington; Columbus, Nebraska, and was regional manager of the Denver Regional Office until two years ago when I was appointed chief consulting engineer of the firm.

I have specialized primarily in long range system and power supply matters involving extra high voltage transmissions.

I have also supervised numerous finance and feasibility studies for thermo plants, transmission lines for power districts, REA finance cooperatives and municipal systems involving review of wholesale rates in power contracts.

I have served as a member of a consulting team for the U. S. Joint Committee on Atomic Energy for the original [T. V, 4] Hanford Nuclear Project.

I have served as an expert witness before courts and commissions and have been six times before the Federal Power Commission.

Several years ago I supervised a river basin survey for the Holmand Valley in Afghanistan for the State Department, and in my present position as chief consulting engineer I assist staff engineers in our lining the complex problems that come to them in all of the six consulting offices that the firm now maintains.

[T. V, 5] Q. Over the years that you have been associated with R. W. Beck, have you had occasion to become familiar with the power supply arrangements in the so-called Missouri River Basin area?

A. Yes. The Denver office was established in 1961 because the managing partner of the firm then determined that there were many power problems in the Missouri Basin and in the Colorado River Basin, and since 1955, I have very closely followed the problems of power supply, and I presume that in the last 15 years I have met at least 50 times or more with the

Bureau of Reclamation office at Boise, Idaho, Denver, Colorado, and Billings, Montana.

Q. Does your firm R. W. Beck work exclusively for what have become known as public power-type organizations?

A. No. We broadened our firm considerably to the point where we now have more than 100 registered professional engineers on a staff that exceeds 200, and we are able to handle all types of utility services, whether it be water, sewer, street drainage, city planning, telephone systems, municipal systems.

We have done considerable work for state and federal agencies. We have branched out to serve industry. The fact is, I could name several of the clients we have recently served, Boeing Airplane Company; Norton Airplane Company of Massachusetts; I have recently finished an [T. V, 6] assignment with the CF&I Steel Company of Pueblo, Colorado, involving contract review and power supply.

We have served the Sun Oil Company, the Atlantic Richfield Oil Company, the Gulf Atomic Company and more recently we have completed one phase of a power supply investigation for Consolidated Edison Company of New York City.

Q. Are you a member of any professional societies?

A. Yes, I am a member of the National Society of Professional Engineers and the American Society of Military Engineers. I am a member of Eta Kappa Nu, which is a college honorary for electrical engineering.

Q. Do you or have you had occasion to publish any papers that you have written in your field of expertise?

A. Yes, I have had published probably two dozen papers, more recently a paper that was prepared for the American Society of Chemical Engineers on the subject matter of integration of industry and utilities, and also a paper for the

American Society of Mechanical Engineers done jointly with our mechanical partner John Rossi concerning the development of mine mouth generation and extra high voltage transmission; and papers have appeared within the last year in the Consulting Engineer Magazine and in the American Public Power Magazine.

Mr. Anderson: I would like to have [T. V, 7] marked as GX-435, a map of the Central Power Electric Cooperative, Inc., existing transmission system.

I would like to have marked as GX-436, a systems map of United Power Association.

I would like to have marked as GX-437, a map of the Cooperative Power Association.

I would like to have marked as GX-438, a systems map of the East River Electric Power Cooperative.

I would like to offer those four maps, Your Honor.

(Government's Exhibits 435 through 438 offered in evidence.)

The Court: Absent objection, they may be received.

Mr. Field: 435, 436, 437 and 438, are those being offered?

Mr. Anderson: Yes.

Mr. Field: No objection, Your Honor.

The Court: They may be received.

(Government's Exhibits 435 through 438 received in evidence.)

Mr. Anderson: I would like now to have marked as GX-439, a map entitled "Transmission Map of Otter Tail Power Service Area." It purports to show municipalities receiving wheeling service from Otter Tail [T. V, 8] Power Company. I say that by way of description.

(Government's Exhibit 439 offered in evidence.)

The Court: Absent objection, it may be received.

Mr. Field: We have some questions about 439 and No. 440 that is coming up.

Mr. Anderson: I have a few questions, too.

Mr. Field: I think I advised you about that.

By Mr. Anderson:

Q. Mr. Trommershausen, looking at GX-439 for identification, first of all, can you tell me whether you had any hand in the preparation of that map?

A. Yes, I supervised the engineer draftsman that prepared this map.

Q. Would you in a very brief way explain how your organization went about preparing the map? What source material did you use?

A. We used the latest available Bureau of Reclamation transmission map, and the 1969 system map that was provided to us by the Department of Justice.

Q. System map of the Otter Tail Power Company?

A. Right.

[T. V, 9] Q. Are there any changes that you would like to make on GX-439?

A. Yes, there are, there are several changes. The mapping of congested utility systems is getting to be pretty difficult, and in some cases the draftsman didn't make the proper interpretation. Take, for instance, on the top in the middle, you will see a rather heavy line going from Devils Lake to Langdon. That's coded here as being an Otter Tail line, and in reality, the upper portion of it is owned by Minnkota Power Cooperative.

Q. In order for this to be fully accurate, that would have to be shown as a jointly-owned transmission line?

A. That is correct.

Q. Jointly owned between Minnkota and Otter Tail?

A. Right. There is another line, looking back, that would need coding, if you go over to the left hand, still on top, you will see Towner and Gardena just north. Now, since preparing this map and reading the files, I find there is a 115 kv transmission line there that was built by Central Power Cooperative and it is under joint use by Central and Otter Tail.

[T. V, 10] Q. So there should be, in order for this to be fully accurate, there ought to be a fat 115 line running from Towner to Gardena?

A. That's right.

Q. And the proper designation of that would be a central power line which Otter Tail Power Company has use of pursuant to a contract?

A. Right.

Mr. Field: Will you just pause a minute to get up to date here?

Mr. Anderson: Sure.

By Mr. Anderson:

Q. This line is not on the map at all?

A. Now going over to the right side of the map and about two-thirds of the way down.—

Q. We are still talking GX-439, right?

A. Yes, sir. You find there is a heavy dotted line east and west that crosses a black line north and south. You see Fergus Falls at the point of intersection?

Q. That's this line right here, is that right?

A. Yes, sir.

Q. All right.

A. And look below Fergus Falls you will see a point marked Elbow Lake. Elbow Lake was not shown on the Otter Tail maps that I had available but in order to be certain that [T. V, 11] we could orient Elbow Lake with respect to other

towns we put Elbow Lake on this map purely for orientation purposes. It is not connected to the Otter Tail system.

Q. Now, all the little names of cities here I take it refer to cities which are served either at retail or receive wheeling service from Otter Tail, is that correct?

A. As shown on the maps, right.

Q. Yes, sir. I see. Are there any other changes that should be made on GX-439?

A. None that I know of now.

Mr. Anderson: I offer 439, Your Honor.

(GX-439 offered in evidence.)

Mr. Field: May I inquire with reference to the map too?

The Court: Sure.

Mr. Field: Can you hear me all right from here, Mr. Trommershausen?

The Witness: Yes, sir.

Mr. Field: First a question about one of the changes that you suggested in 439 and that was a line from Towner to Gardena which you said was a 115 kv line. That line is shown on the Central Power Electric Cooperative transmission system map Exhibit 435, is it not?

The Witness: I have misplaced [T. V, 12] my copy of that map.

Mr. Field: We will make them available to you.

The Witness: I see the map. I see the line on the map.

Mr. Field: That's a Central Power Electric Cooperative line, is it not?

The Witness: That's correct.

Mr. Field: Otter Tail owns no part of that line?

The Witness: No. But as I indicated, I understood reading the contracts that Otter Tail had use of the line.

Mr. Field: Then you are suggesting that on Exhibit 439 all lines which Otter Tail has a right to use of should be shown?

The Witness: No. If I would do that again, this map would look as complicated as the original maps I started from, and I should make it clear that because the other maps have so much background information on them it was difficult for me, and I am sure it would be difficult for the Court, to get an understanding of what the general subtransmission system of the Otter Tail Power Company was unless we could separate it from out of the other lines because when we go to the other maps that are coming up [T. V, 13] which are in reference here, which have just about everybody's lines on them, it's difficult to get an appreciation, at least for me, as to why the towns that Otter Tail serves at retail are located.

Mr. Field: I appreciate your comments, Mr. Trommershausen, but we have to do one thing at a time, and as far as 439 is concerned, which is the exhibit we are talking about, if the Towner-Gardena line was shown because Otter Tail has right to use it, you would add many, many more lines on 439, wouldn't you?

The Witness: Then I will say strike the line.

Mr. Field: That was my suggestion. Do you concur?

The Witness: I concur.

Mr. Field: Now, into some other items that were called to my attention by our people, Otter Tail's staff, with reference to Exhibit 439, and as an example of something that I have been told occur several times on the map.

Would you concentrate for the moment on the area of Perham and New York Mills which is towards the right side of the middle of 439?

The Witness: Yes, sir. I find it.

[T. V, 14] Mr. Field: Now, 439 shows two black lines between Perham and New York Mills which has the legend 41.6 kv transmission line. Is the map intended to show two transmission lines between those two towns?

The Witness: As drawn—just let me check. The map as shown as we have drawn it does show two lines. I see the draftsmen had some problems because on your map there is a gap between Richville, and an extension north of Otter Tail; on the Bureau of Reclamation map there is shown two lines.

Mr. Anderson: In order that the record show what we are talking about here, when you talk about the Bureau of Reclamation map you are talking about GX-205?

The Witness: That's correct.

Mr. Field: Let's start out with this, Mr. Trommershausen. There is only one line between those two points, isn't there?

The Witness: Depending upon which map you use as a reference.

Mr. Field: Well, in fact?

The Witness: Not having been in the field, Mr. Field, we didn't check the actual, physical facilities against these maps.

Mr. Field: Well, for the [T. V, 15] moment, just for the purpose of questions I will ask you to assume there is only one line between Perham and New York Mills, electric line.

The Witness: Yes.

Mr. Field: I suggest for your consideration that you have reproduced or your draftsman has reproduced on Exhibit 439 not only an electrical line but a public highway in the same key that the transmission line is reproduced. That suggested to me that he took off the highway and also put that in.

The Witness: Well, Mr. Field, I don't see how that was possible because the two maps he used I have in front of me and they don't have any roads on them. So it was a question

of which map was the more accurate, I believe was the problem that faced the draftsmen. If you say there is only one line there I will accept that.

[T. V, 16] Mr. Field: There are several similar ones. I call your attention to some others and see if that helps solve the problem.

If you will look towards the upper part of the map, St. Vincent to Hallock, running through the towns of Humboldt and Northcote, do you find that location?

The Witness: Yes, sir.

Mr Field: We seem there also to have two lines indicated on the map, Exhibit 439, between those points. Do you see that?

The Witness: Yes, sir.

Mr. Field: Assuming there is only one line there, do you have any explanation of why the duplication is there? I am trying to get at the background of your map.

The Witness: Yes. Comparing that, again, to the Bureau map, that is a draftsman's error.

Mr. Field: Which Bureau map are you referring to?

The Witness: 206.

Mr. Field: I am looking at our copy of 206 now, and between those two points there is a yellow line?

The Witness: Yes, sir.

Mr. Field: That is one of the lines between those two points on 439, is it not?

[T. V, 17] The Witness: That is right.

Mr. Field: Right?

The Witness: Right.

Mr. Field: There aren't two electric lines shown between those points on the Bureau map, Exhibit 206, are there?

The Witness: No, there is not, and I can't explain why that draftsman put the extra line on.

Mr. Field: Is there any other reference we can look at for a key as to what happened there?

The Witness: No, sir.

Mr. Field: There was another map that you said you looked at in preparing this, another source? What map was that?

The Witness: The company's map.

Mr. Field: Do you have that?

The Witness: Yes, sir, we have several. This was the one we started with and this was the one we told the Justice Department was so difficult that we didn't want to start with this one, and they provided this one (indicating).

Mr. Anderson: Should I mark this?

Mr. Field: I would like to see what the source was. Maybe we can find the key to what happened there.

[T. V, 18] We furnished you this, I suppose?

Mr. Anderson: Yes, you did.

Mr. Field: Could I see the one that you said wasn't so easy to understand?

The Witness: Yes. This is the source map.

Mr. Field: Probably the draftsman might have used this?

The Witness: Possibly, but that was the map that prompted me to say that we ought to do something to simplify the location of towns because that was difficult to read.

Mr. Field: I think it might help us as to what happened. Can we mark this?

Mr. Anderson: Yes.

Mr. Field: Should I mark it or do you want to? It's one of the source maps he used.

Mr. Anderson: You can mark it.

Mr. Field: I will have it marked.

The Court: Is all this going to be helpful to us? Are these errors significant?

Mr. Field: They might be pointed to by somebody on the map unless they are corrected.

The Court: I gather that there is a mistake running on the two lines from Hallock to the border?

[T. V, 19] The Witness: Yes.

Mr. Field: There are several more. That's the point.

The Court: Why don't you point them out to him and perhaps he will admit that they are in error.

Mr. Field: I think this will help. Should I try it?

The Court: He doesn't seem to need much help. He said that the draftsman made errors. I don't think we should spend too much time if it isn't a signal thing.

Mr. Field: I will ask him if he concedes the points that I have in mind.

Will you mark this?

(Defendant's Exhibit 38 marked for identification.)

Mr. Field: Do you concede that the double line between St. Vincent and Hallock is an error?

The Witness: Yes.

Mr. Field: Do you concede that the same situation is true between Clyde and Langford, North Dakota?

The Witness: I need some help identifying this.

Mr. Field: Towards the top of the map [T. V, 20] about in the middle.

The Witness: I have found it.

Mr. Field: There are two lines there, too. Do you concede that is an error, also?

The Witness: Yes, that is an error. I see that the draftsman may have been confused because your map does show a

second line but it is coded with a different ownership. There is a second parallel line in the area, but it is coded with a different ownership, so I concede that he misinterpreted that portion of the map.

Mr. Field: Then if you will look at the situation between Egan and Trent, South Dakota, and I will ask you if you concede that the situation there is an error as far as those lines?

The Witness: Yes. He would have the same problem because there is another parallel line of different ownership, and apparently he interpreted that from your map as your line.

Mr. Field: I have difficulty hearing you over here.

The Court: He made a mistake, he says.

The Witness: Yes, sir.

Mr. Field: Milbank-Marvin, South Dakota, a similar situation? I suggest that the Milbank-Marvin line as shown here is non-existent. There aren't [T. V, 21] two lines. What you have shown as a line is not a line.

The Witness: In checking the two source maps that were used, I find there is not on the Otter Tail map a line from Milbank to Marvin. On the Bureau map there is a line, but of a different ownership. This is an error.

Mr. Field: Now, I call your attention to the Lake Preston-Hetland, South Dakota, line.

The Witness: From Hetland to where?

Mr. Field: Lake Preston.

The Witness: There is a line of another ownership parallelling the Otter Tail line, and I presume he made the same error.

May I point out to the Court that the difficulty of reconciling these two maps is that what was an official source map, the Bureau map, does not have all the towns named nor the substations named, and so it is a difficult problem to try to

reconcile the facilities on this map to the other one. That is why this draftsman had some serious problem.

Mr. Field: The parallel line is the East River Electric Cooperative?

The Witness: According to the code on the Bureau map, that is correct.

[T. V, 22] Mr. Field: If you will look at the Donaldson-Argyle map?

The Witness: I found it.

Mr. Anderson: Your Honor, would it be helpful if I marked as an exhibit the most recent Otter Tail map which shows exactly where the lines are and whether they are two and one in a given situation and perhaps to the extent there are minor errors that occurred in the process of transposing from this map to the one that created those errors will be corrected by this map. We will see that in the process of taking things off this map, taking things off the Bureau map, human error intruded and little mistakes were made. Perhaps for the sake of clarity I will have marked Otter Tail Power Company System map dated 1970.

The Court: Is the object of 439 just to show municipalities served by wheeling contracts?

Mr. Anderson: Right.

The Court: Do you concede those eight or nine places are served by wheeling contracts? Would that solve the problem? Sixteen communities.

Mr. Field: Could I have just a moment, Your Honor?

The Court: Is that right?

Mr. Field: I said just one [T. V, 23] minute.

The Court: Oh, excuse me.

Mr. Field: Well, I think what Your Honor's inquiry of me was whether the towns underlined in red on 439 were towns

to which Otter Tail wheeled. I think that is correct, and I think the contract for the wheeling arrangements are all exhibits in this case.

The Court: Is that the only purpose of 439? May that be received with the understanding that's its sole purpose, it doesn't reflect anything else?

Mr. Anderson: Yes. I think that's fine.

Mr. Field: We don't need the exhibit if that's the purpose of it.

Mr. Anderson: It's a lot easier than looking through 18 contracts.

The Court: It may be understood there may be some other errors and double lines.

Mr. Field: There are other errors in other respects too on the map.

The Court: Why don't you withdraw the map? I can take judicial notice of where the towns are I suppose. They are there.

Mr. Anderson: I don't know. Are these other errors errors of moment or do they go to the [T. V, 24] question of whether in fact these—what we are trying to do is show the Otter Tail system and show where on the Otter Tail system these wheeling customers are. If we ever, when we get to the substantive question that we are going to present to Mr. Trommershausen, we are going to trace the process by which the power is wheeled to these towns.

The Court: Why don't you use Otter Tail's map. That's presumably accurate.

Mr. Anderson: Well, it may be accurate but it doesn't show—it doesn't indicate on the map which towns are wheeling customers. This one does. You have a big—you see on their map you have—you just have a lot of towns and no way of

knowing which ones are wheeling customers and which ones are retail customers. The purpose of this map is simply to show where the 17 wheeling customers of Otter Tail are on the Otter Tail system, and after we get the map in evidence then we are hoping to have Mr. Trommershausen very briefly show the, using that map, show the process by which power is delivered. If you use the more complicated map which doesn't have these towns designated as such it gets much more difficult to find what we are talking about because there are so many towns in the area it's hard to find the particular one you are dealing with. This one has them underlined.

Mr. Field: The problem we have [T. V, 25] is a map which is an exhibit in the case which has errors that we pointed out and some others I think we can point out in other respects, and all it's offered for is to show where certain towns are and then people start looking at the map and interpreting the legend and all that's here, and we got to refer and deduct and correct from some other maps; maybe we understand it, but it's a complicated process of receiving an exhibit.

The areas that we have in mind that we can point out include the voltages on 439 for some of the lines that we think are incorrectly shown. There are some lines that are left off the map. There are some portions of some lines that have other ownerships than are shown on the map other than those that have already been pointed out.

The Court: Your view all those are going to be significant in some later point, are they?

Mr. Field: I don't know. We have a map and these things presented on them as representing facts and they could well come under the classification of trivia all right but as a lawyer here with a map being offered in evidence I think it's my duty to call attention to the errors that are presented on it. If it's

only offered to show where Detroit Lakes and Alexandria and so forth are, I think the exhibit is superfluous.

I will follow any line Your [T. V, 26] Honor suggests we should.

The Court: I don't know, of course, what's coming. I can't offer any guidance. I think we are fooling around with a lot of minutiae here.

Mr. Anderson: Your Honor, you can rest assured that we are not going to involve ourselves in anything other than the question of the wheeling customers. That's the only point for which this map is offered. We are not going to involve ourselves in the discussion as to whether in fact there are two lines or one line between two cities up in the middle part of the map.

The Court: Will the power supply 118 afford it, will that be significant in any presentation? Mr. Field says some of the power symbols are wrong too. Will that be significant?

Mr. Anderson: No. I don't think so. No.

The Court: May it not be offered for just solely showing where those 17—not 16?

Mr. Anderson: Seventeen.

The Court: Communities are? It may be received for that limited purpose, would that satisfy you?

Mr. Field: If we need it for that limited purpose.

[T. V, 27] The Court: Let's assume we do and we will receive it for that then. All right.

(GX-439 received in evidence.)

The Court: What about the other exhibits?

Mr. Anderson: I would like to have marked as GX-440 another transmission map of Otter Tail Power Company's service area. This one has essentially the same as 439 except this one has an overlay of the Bureau of Reclamation trans-

mission system on the map. The purpose of this is to show the Otter Tail subtransmission and the overlay of the Bureau grid upon the Otter Tail subtransmission network.

The Court: Is there an objection to 440?

Mr. Field: It has all the same errors as 439 has.

The Court: Its limited purpose is what?

Mr. Anderson: Is to show the overlay of the Bureau transmission network in the Otter Tail service area.

The Court: That's its sole purpose?

Mr. Anderson: Right.

[T. V, 28] Mr. Field: Now, we see somewhat where we are going. We are tying in Bureau overlay with Otter Tail system on the same map in which all these errors, minute or otherwise, occur.

Mr. Anderson: It's pretty hard to get a map as absolutely perfect in every respect. I have never found one, and you try to do the best you can. Even the Bureau map here is an official publication of the Bureau of Reclamation and we discovered here today there are some minor errors in that. It's very difficult to get a map that's a hundred percent accurate in every respect, Your Honor, and I think—

Mr. Field: Just a moment please, Your Honor. We have information, Your Honor, which, from which we believe we can point out additional errors in 440. By additional errors I mean in the overlay of the Bureau's lines. They also may be details but nevertheless they concern the location of some lines and some substations and some items that are reported to us to be left out and some voltage errors on the lines and there is one town left off.

Well, maybe they are details, I don't know, but they are things that—we studied these things, they were given to us, and we have found what occur to be errors to us.

Now, is there some way—I [T. V, 29] don't suppose it's up to us to take the stand and point out where the errors are. It should be the person that offered it.

Mr. Anderson: The whole purpose of this exercise, Your Honor, was an effort by us to take the big Bureau map which has been marked as GX-205 that shows the whole eastern division of the Missouri River Basin Project. We blew that up to show the Otter Tail area, service area, and the other lines in that general area.

Now, as an aid to the Court, we thought we would be useful to go a step further and take out the Otter Tail system from this map and impose on that system the Bureau grid in hopes that in a general sort of way we could demonstrate to you what the Otter Tail system looked like in general, what the Bureau overlay looked like in general, how the two looked meshed together generally.

Now, as I have said before, it's a little difficult to transpose this information from one map to another. We did the best we could. To the extent they were minor errors we apologize, but we don't think those minor errors detract from the overall purpose of the exhibit.

The Court: Exhibit 206 tells a story, but it isn't as clear there as it would be by these details?

Mr. Anderson: Right. And our only purpose, Your Honor, was to try to take 206, take out [T. V, 30] the extraneous lines, leaving just the Otter Tail network and the Bureau network to show in general how those two look together.

The Court: I wonder what that understanding these others with their minor errors couldn't be received and then if there is something of moment that might be prejudicial you could bring it up later, Mr. Field?

Mr. Field: We can assume that burden if Your Honor thinks that's the way we should proceed.

The Court: I gather 206 is an accurate picture of the whole story, you say it won't be so clear to me unless you take out some extraneous things?

Mr. Anderson: Yes. It purports to be an accurate representation prepared by the Bureau of Reclamation, but you see there are other system lines in there too, different colors and whatnot, and we thought that it would be an aid to the Court to take out all the other lines which are on either side of the Otter Tail system, some cases traversing it, leaving just Otter Tail and Bureau so you could see how those two work together.

The Court: Otter Tail in orange on 206?

Mr. Anderson: Right. Down at the bottom there is some other orange that belongs to somebody else and rather than scissor this all up some more we made [T. V, 31] this exhibit 440 to try to portray graphically how these two systems look together.

Mr. Field: May I observe, Your Honor, that Exhibit 206 which shows all of the lines of a certain voltage, I believe, and includes lines of other suppliers and Otter Tail and the Bureau, the lines of the other suppliers are by no means extraneous. They are a part of the system. They are a part of what happens in this area.

Mr. Anderson: And they are part of the record too, GX-206.

Mr. Field: And just isolating Otter Tail and the Bureau, what you have left is not an electrical operating system nor does it represent the facts in the case.

The purpose of this last exhibit, of course it's your testimony, it can proceed as you apparently plan to in the matter, but I would like to observe as we go along that the entire pic-

ture of what lines are in the area is a more factual situation than to isolate any particular lines.

The Court: Exhibits 205 and 206 have been received in the stipulation?

Mr. Field: Yes.

The Court: Maybe with that understanding those official maps show the story and the [T. V, 32] others are only meant as an aid, would that prejudice you?

Mr. Anderson: Yes. That's fine.

The Court: The others may be received with that understanding. Now, go ahead.

(GX Exhibit 440 offered and received in evidence.)

Mr. Anderson: I would like to have marked two additional reports filed by Otter Tail with the Federal Power Commission called Form 1 Report. I have one here for 1970 and I have one for 1960. The 1970 one I would like marked as GX-441 and the 1960 as GX-442. These documents were prepared by Otter Tail people and filed with the Commission and are official records of the FPC and contain the background information concerning the operations of Otter Tail Power Company, and we feel it's useful, and we are going to use these with Mr. Trommershausen later and we also feel it's useful to have in one place a set of figures that both sides can rely upon rather than each side relying on different figures and coming up with different numbers because of the different calendar years involved or whatnot.

We feel this would give us a source of information we would use in describing Otter Tail's operations in our brief.

The Court: If there is no objection, they may be received.

[T. V, 33] Mr. Field: If the Court please, I would like to observe this. We were to exchange proposed exhibits pursuant to the pretrial order. These proposed exhibits were not

included in that process, and they are Otter Tail reports, so, of course, we have access to the information from other sources being furnished by counsel, and in connection with studying them as to what connection they may have with the issues in this case, if they are to be received, we may need some time to take a look at them to see what application they may have to this case.

Filing a report is one thing. We don't have so much trouble with the 1970 report as the 1960 report. That is ten years ago. I don't know what the purpose of the 1960 report is.

The Court: They may be received.

(Government's Exhibits 441 and 442 received in evidence.)

Mr. Field: We have the 1970 report but not the 1960 report.

Mr. Anderson: We will have a copy of the 1960 report made, hopefully by the end of the day if we can get access to the Xerox down here. But we will do that.

Finally, I have had marked as GX-443, a map prepared by the Bureau of Reclamation dated 1970 [T. V, 34] entitled "Missouri River Basin Power Systems." This map is nothing more than an updated version of GX-236. At the time we prepared GX-236, which we had testimony from Mr. Muller on, we did not have the 1970 version of the map. In the interest of accuracy, we secured it and we would like to have this put into the record to update the information.

Now, perhaps before I offer it I ought to ask Mr. Trommershausen a few questions about it.

By Mr. Anderson:

Q. Mr. Trommershausen, you will note there are some red dots on that map. Did you place the red dots on there?

A. Yes.

Q. Can you tell us what those red dots signify?

A. They represent, based upon the latest information that I had available, the points at which contractually the Bureau of Reclamation system and the Otter Tail system are now tied together. I might point out that there are in some cases multiple connections at some of these substation locations. You have to refer to the contract and more detailed drawings to find out what those are. But this, again, represents the location of the principal substations that are interconnected.

Mr. Anderson: I should also note for the record that at the very top of the document there is a little red dot and next to it it says "Interconnections [T. V, 35] between Otter Tail and the Bureau of Reclamation." That sentence was typed on the document by the Department of Justice secretary. It was not part of the document as prepared by the Bureau.

I offer GX-443, Your Honor.

(Government's Exhibit 443 offered in evidence.)

Mr. Field: I comment again, Your Honor, this is a new exhibit that we haven't seen before this morning. If the exhibit is offered to show where the red dots are, and apparently they are the same on Exhibit 236—Are there any differences there?

Mr. Anderson: This document is a much clearer—I will give Your Honor a copy of 236, which is the earlier exhibit, to compare it with Exhibit 443. We think 443, in addition to the updating, shows a clearer picture, a better map, and I think—

Mr. Field: Well, I am not sure that I am going to object. I just asked, are the red dots the same on the two maps?

Mr. Anderson: I think they are.

Mr. Field: A cursory review looks as if they are. I am just asking because I have just seen this new one this morning. It was just handed to us.

Is that true?

[T. V, 36] The Witness: Are you asking me, Mr. Field?

Mr. Field: Yes, if I am privileged to ask you.

The Witness: Yes, it's true. However, I would point out, and perhaps counsel wasn't advised, on the more recent map that the Bureau of Reclamation provided, there is a line between Valley City, Forman and Summit which has been completed since the other map was prepared. So in respect to the area in which we are studying, in addition—Well, the dots are the same. There is this added line, Mr. Field.

Mr. Field: We are familiar with that item.

We have no objection to 443.

The Court: It may be received.

(Government's Exhibit 443 received in evidence.)

By Mr. Anderson:

Q. Using GX-443 and GX-205, GX-205 being the bigger Bureau map and GX-443 being a smaller Missouri Basin Power Systems map, would you first, Mr. Trommershausen, indicate to us generally where the Bureau of Reclamation power is produced? Where does it come from? I am talking now solely in terms of power marketed in the Eastern Division of [T. V, 37] the Missouri River Basin Project?

A. On Exhibit GX-205, if you will look at the top center, you will see a reservoir which will help us identify, showing the Fort Peck project. That is the most westward project in the Eastern Division.

Then let's follow down the river. The next reservoir to the east is the Garrison reservoir. Then when you go south from the Garrison reservoir you will see the Oahe reservoir. Then you will see in the center of South Dakota Big Bend reservoir with a big concentration of reservoir transmission lines at Fort Thompson, and then proceeding south you come to a reservoir and dam called Fort Randall, and below that dam

you will find a reservoir at Gavins Point, and there is a generating plant there. Those are the main stem dams of the Corps of Engineers system that produces power that is marketed by the Bureau of Reclamation.

The Bureau of Reclamation has two additional projects in this region. One is the Yellowstone project and you will see it if you go south from the original Fort Peck project down to almost the Wyoming border, you will see a dam called Yellow Tail. The output of that project is generally divided 50-50 between the Eastern Division, which we are now speaking of, and the Western Division.

[T. V, 38] Then if we move on up to the left and almost to the Continental Divide on the upper Missouri River, near the State Capital of Helena, we see a dam called Canyon Ferry. That project is also a 50-megawatt project, part of the power supply of what the Bureau calls its Eastern Division.

Q. I take it that the power that is produced at these Bureau facilities is marketed generally to the east and south of those facilities, isn't it?

A. The bulk of the market is to the east and south, but there are, of course, as shown from the map, loads served enroute and all over the States of North and South Dakota and Nebraska.

Q. That power is marketed as is shown on GX-205 eastward to a point in Minnesota, I take it?

A. Yes. The Bureau map has, as far as I can remember, has also shown the eastern power market for hydro power to that area that lies west of the gray line that is shown on map 205, starts up at the Canadian border and goes down to the Kansas border.

Q. Now, using GX-205 and 206, I take it that the basic Bureau of Reclamation transmission grid is shown in red on those two maps, is that true?

A. That is correct.

Q. Now, what is the principal function of the Bureau transmission network, Mr. Trommershausen?

[T. V, 39] A. The principal function of this network is to deliver the hydro power to the Bureau's market, and that market is made up basically of the so-called preference customers, but the grid, as was previously discussed, makes effective interconnections with the transmission networks of all of the utilities, public and private, in the Missouri Basin. These connections were made at the periphery of the marketing area and throughout the Missouri Basin whenever it's beneficial and justified.

Q. What voltage are the bulk of the transmission lines in the Bureau network, Mr. Trommershausen?

A. I don't have access to the exact mileages of each voltage class. I would say that the basic network for delivering bulk power supply to load centers is 230 and the 115 kv transmission lines. Just recently, however, the Bureau of Reclamation found it necessary to go to a higher voltage, and as you will see on the bottom of 206, a dotted line with square dots connected with light lines, that is a new 345 kv line, extra high voltage that the Bureau built to deliver hydro peaking power in the Nebraska area.

I might also say, if you look over in the lower right-hand corner, you will find Sioux City, and at that point you will see two transmission lines labeled 161 kv. That is an intermediate voltage level between the 230 kv level and the 115 kv level, and the Bureau selected that to [T. V, 40] accommodate the private utilities in Iowa, in Western Iowa that wanted to interconnect with the Bureau transmission grid.

Now, the Bureau does own a small amount of 69 kv transmission line and in the Fort Peck area some 34.5 kv. These

you will find a reservoir at Gavins Point, and there is a generating plant there. Those are the main stem dams of the Corps of Engineers system that produces power that is marketed by the Bureau of Reclamation.

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Now, the Bureau does own a small amount of 69 kv transmission line and in the Fort Peck area some 34.5 kv. These

latter two voltages I would consider as a sub-transmission voltage, and I might point out that there is another error in our basic map, because the Bureau line between Edegely and Forman is not shown with a voltage designation, and he assumed it was a 115 kv line. Actually, it is a 69 kv line. This, again, represents the difficulty of anybody preparing a completely up-to-date map and getting all the details on it.

[T. V, 41] Q. Now, is the totality of the Bureau of Reclamation transmission network commonly referred to as a transmission system?

A. Yes. As distinguished from a subtransmission system, I would call the present voltage levels that I discussed excepting the 69 and the 34.5, I would call that the basic Bureau transmission grid.

Q. Would you explain for the Court the difference between a transmission system and a subtransmission system?

A. Yes. The basic transmission system that's laid out for any major utility is that system that is designed to transmit what I prefer to call bulk power supply. What I mean by bulk power supply, I mean blocks of power, 25, 50, a hundred and larger amounts of power.

The purpose of the bulk power supply system is to move power to the load centers in the most efficient, the most reliable and the least costly manner. The bulk power transmission system does not, however, enable the Bureau or any utility having such a system to reach the ultimate market.

Q. And how does subtransmission fit into that?

A. Well, the subtransmission system is the device, if you will call it that, by which power moves nearer to the point of use. In other words, there generally is interposed between the bulk transmission system and a city, town or [T. V, 42] industry a subtransmission system.

I have reference in this case to the term municipal gate. A subtransmission system would be used to take power from a load center on a bulk system to the municipal or to another type of customer that the Bureau has in the Missouri Basin. The subtransmission system would take power from the bulk power supply system to two or three or more selected points of delivery in each of the counties in which the rural electric cooperatives are located.

So, in other words, the subtransmission system breaks down to a lower voltage the power supply from the bulk system and brings it to a point where it has to go through what is called a distribution system in order to get to the retail customer.

Now, the distribution systems are of different types and designs. There are some 2300 volt distribution systems still used in many towns in the Missouri Basin. There are many 12,500 kv distribution systems in use both in rural areas for cooperatives and for municipal distribution. There is now coming into wider use in certain of the sparser areas a voltage level which is 24.8 kv, and to the best of my knowledge in the Missouri Basin that has been used primarily by rural cooperatives.

Q. Bringing all of that into the context of this case, would it be proper to assume that the Bureau transmission [T. V, 43] network is a bulk power supply transmission network?

A. Yes, it is, but I should make this qualification. That as generally happens there are instances where a substation can serve two purposes. A bulk power supply substation can serve two purposes. It cannot only step down to provide power into a local subtransmission system, but it can serve loads of cities if they are close enough to make a connection to the bulk power supply system and there are, I am sure, a number of situations where the substation is close enough, a Bureau sub-

station is close enough to a town or a cooperative that it can serve those two customers without going through a subtransmission system.

Q. Now, in this eastern region system of the Missouri River Basin Project, does the Bureau of Reclamation own its own subtransmission network?

A. Generally no. I mention the small amount of 69 kv and 34.5 kv. The Bureau has elected in this area in contrast, say, to the Bonneville area, the Bureau has elected to use under a wheeling arrangement the subtransmission system of the existing public and private utilities in the Missouri Basin market area.

Q. Now, looking for a moment at GX-443, and those points of interconnection at the point of reference here, generally speaking, at a point of interconnection between the Bureau high voltage system and a private utility whose [T. V, 44] subtransmission is going to be used by the Bureau, is there generally located there what's known as a substation?

A. Yes, sir.

Q. Could you very briefly tell the court what the function of a substation in that context is, what does it do?

A. A substation is an electrical installation that serves several purposes. Primarily it serves as a point at which you can reduce the voltage from the bulk transmission voltage in the area to the transmission voltage in an area. Take, for example, if you will, a simple substation called Rolla.

Q. That's indicated on GX-443, is it not?

A. That's right. Near the Canadian border. It's the most northerly Bureau station. That substation has for its sole purpose as far as I can determine stepping down power from the Bureau's 115 kv transmission line that goes from Leeds to Rolla running north, stepping down that voltage to two voltage

levels, one to 41.6 kv for a connection to the Otter Tail Power Company subtransmission system and also a transformation down to 12.47 kv for service to Baker Cooperative.

Now, this is one general use of a substation. If we take a look at a substation at Devils Lake, which is convenient, that substation serves two purposes. It serves as a switching point to switch the Bureau's transmission line from Leeds to Lakota and also from Devils Lake down to [T. V, 45] Carrington and Jamestown. In other words, this substation serves a switching facility which is necessary for system reliability. It permits a two-way power supply in case of difficulty.

Q. Well—

A. This substation also steps down to provide a connection with a subtransmission system of both Otter Tail and Minnkota Power Cooperative.

Now, in the major other larger substations, you would step down from 230 to 115 so as to provide an additional power capacity in the 115 grids which is a sort of a second step in the transmission grid.

The Court: Excuse me, gentlemen. We are going to recess until 2:00 o'clock. I am sorry to have to discommode you, but I must make a commencement speech to the William Mitchell College of Law tonight. In connection with that I have to go to Minneapolis for a luncheon today so it will give you a little more time. We will recess until 2:00 o'clock.

(Whereupon a recess was taken until 2:00 o'clock P.M., June 7, 1971.)

[T. V, 46] (June 7, 1971, 2:00 o'clock P.M.)

(Appearances as heretofore noted.)

Whereupon,

WILLIAM E. TROMMERSHAUSEN,

having been previously sworn, resumed the stand and testified further as follows:

DIRECT EXAMINATION
(Cont'd)

By Mr. Anderson:

Q. Mr. Trommershausen, would you define for us what the term wheeling means in the electric power industry?

A. Yes. Wheeling is an operation wherein one utility uses the facilities of another utility to move electric power energy from one place to another. This is usually done under a contractual arrangement, either short or long term.

Q. Now, are there different types of wheeling, different ways in which wheeling is actually accomplished?

A. Yes. Now that we are getting very complex interconnected network systems, wheeling can be used wherein power moves directly from one point on an electric system to another.

Another type of wheeling in which the movement of power is accomplished is through what is called displacement. In this process, an agreed upon amount of power or a proper [T. V, 47] amount is put into one area of an interconnected system and it is used there. An equal amount of power or an agreed upon amount from another source of generation is used to supply a load.

Maybe I can make it more clear by an example, a hypothetical, the Bureau wants power to go, let's say, to the Forman area, which is a known location on the Bureau grid. If it were direct wheeling power it would come from the nearest Bureau generator and go from that generator, let's assume Garrison,

to Forman. But, now, when you get into a network operation, it's possible that the Bureau power would not have to go to Forman, it would be used within the Otter Tail and other systems in the Garrison area, and power from one of Otter Tail's generating plants would go to Forman because that is closer.

So this is one of the keys to power pooling in which power does not have to go the longest distance. Power goes, actually, the shortest distance and power gets commingled and it is accounted for on a metering and bookkeeping basis.

Q. In other words, if I have this right, under one type of wheeling, the power is put into, say, for example, the Otter Tail system here at Point A, is actually transported over that Otter Tail line to the customer?

A. Right.

[T. V, 48] Q. Is that what you call the actual delivery?

A. Yes.

Q. The other type, the displacement type of wheeling, as I understand, is where a certain block of power is put into the Otter Tail system at a point of interconnection with the Bureau and an equivalent amount of power is delivered elsewhere on the Otter Tail system by Otter Tail to the Bureau customer?

A. Yes. I think perhaps an exhibit you put in this morning, it occurs to me, may better explain this phenomenon. That is Exhibit 456, which is United Power Association. That is the number that is on here.

Q. I think you have got the wrong number there.

Mr. Field: 436 is United Power.

By Mr. Anderson:

Q. 436 is the number.

A. If I can refer to Exhibit 436, this is probably as good an example as one could find on displacement, because it was

one of the major schemes worked out in the Missouri Basin.

On the map on the left, you will see the plant called Stanton. That is a relatively new generating plant owned by United Power Association. They built a transmission line to connect to the systems of Northern States and Otter Tail in the Minot and Devils Lake area and with [T. V, 49] Northern States in the Grand Forks area.

Now, the output of the UPA plant is used to meet the load requirements of these two companies in North Dakota and an equivalent amount of power used there is delivered in that area crosshatched over on the right side from plants of Otter Tail and Northern States to meet the loads so that power does not have to travel all the way from Stanton to this area. I think that is a good example of delivering power by displacement.

Q. From an engineering standpoint, why do wheeling arrangements make sense?

A. There are several answers to that question. One, they avoid duplication of facilities.

Q. What do you mean by that?

A. Well, the alternative to using a wheeling arrangement, using someone else's subtransmission system, is to build a duplicate transmission line and engineers are hardpressed these days and are becoming more so by proliferations of transmission lines crossing the countryside, taking up valuable rights-of-way, so from an engineering standpoint, it is desirable to make the maximum use of all existing facilities before new duplicating facilities are needed.

[T. V, 50] Q. I think I interrupted your answer. You had given us one of the reasons why wheeling made sense from an engineering standpoint?

A. The second reason is related to service reliability. An inspection of the maps before us show that all the systems in the Missouri Basin have matured rather remarkably, I would say, in the last 10 to 15 years to the point where there is now loop service both on a bulk transmission grid and on the sub-transmission grid. When I say a loop service, that means we have completed the transmission loop, and so that a failure of a portion of the line does not cause an outage for the entire area.

If you are going to build a duplicating facility to bill from A to B, you would have a radial line which would be—which would subject the customers at the end of that line to complete outage, whereas if you had, the alternative would be to extend the line to another place where you could effect a connection with a bulk power supplier so as to provide two-way feed or circuits, and then, I think thirdly, there is a matter of the best use of capacity.

Now, one of the problems facing engineers in designing transmission when you have in mind reliability and the avoidance of proliferation of facilities is that you want to build a line that has enough capacity in it so that it takes care of future load growth. Engineers nowadays in my [T. V, 51] opinion can no longer build lines for five year needs and then build a second line at the end of that period. You have got to choose a conductor size on a voltage level and build a capacity into a facility so that you can at least take care of ten year growth, and so it is advisable with that basic fundamental, design fundamental, it is desirable to have arrangements with your neighbors or others whereby the surplus capacity may be used as early as possible on a reasonable basis because if you build duplicate facilities, both lines have surplus capacity in them for a longer period of time.

Q. Well, are the wheeling arrangements which the Bureau makes with utilities so that the Bureau has access to the subtransmission networks of these utilities, are these wheeling arrangements predicated upon the existence of excess capacity in the subtransmission system of the IOU's?

A. Yes, they are. And the contracts I have reviewed and have worked with with my clients in the Missouri Basin are usually on a four year surplus capacity notice basis. If I could explain that. The wheeling agent gets a request from the Bureau and that request will give him the load forecasts each year for four years down the road, and the wheeling agent is then required within a time specified within the contract to say whether he has assured capacity in the existing facilities to make that wheeling arrangement to the [T. V, 52] full amount of the need for the four year period, and if not, arrangements will have to be made to provide the increased capacity. I might say that in the early years I was fearful that four years was not enough time to work out alternative plans, but I may say that, surprisingly enough because of so many joint studies being made and people having knowledge of each other's capacity and problems, that I don't know of any instances where the four year surplus capacity notice basis has caused a hardship; and so I think that it's reasonable in the future to consider that wheeling service can be done to the satisfaction of both parties on a four year surplus capacity notice.

Q. In designing a subtransmission system, does a utility in your opinion customarily plan to have excess capacity in its transmission network, subtransmission network?

A. Yes. And I think that's increasingly so and several ways of achieving this. Taking an existing system is one if the configuration of the structures aren't proper you some-

times can go to a higher voltage with the same poles. Maybe you need new cross arms, certainly need new insulators.

The second method is in having loop circuits you can take part of them out of service. You can increase the conductor size. You can replace the existing conductor with larger size conductor and a new arrangement that's coming into being is called bundling of conductor.

[T. V, 53] Bundling of conductor is simply adding a second conductor and tying it in with fixtures to the existing conductor and in this way increasing capacity of lines.

The new lines being built, in my experience, are being built with every increase in conductor size because of the problem that we are facing about in securing right of ways for duplicating facilities.

Q. Now, is it in your judgment desirable for a utility which has excess capacity in its subtransmission facilities to enter into wheeling arrangements?

A. Yes. Because of the added revenue that you obtain from the wheeling service.

Q. If you didn't enter the wheeling arrangement you have excess capacity which wasn't being used?

A. That's correct.

Q. Now, turning to the transmission arrangement between Otter Tail and the Bureau of Reclamation specifically for a few moments, and using GX-443 as an illustration, would you tell the Court what the function of that wheeling, of that transmission arrangement is insofar as the delivery of power to Bureau customers is concerned?

A. Yes. This map shows the points at which the Bureau is prepared and in fact does deliver firm electric power and energy into the transmission and subtransmission systems of the Otter Tail Power Company for redelivery by Otter Tail

[T. V, 54] to the preference customers of the Bureau of Reclamation in Otter Tail's service area, and in addition, these facilities make it possible for the Bureau from time to time to deliver some other commodities to the Otter Tail Power Company.

For instance, the Bureau has from time to time surplus dump hydroenergy, and Otter Tail has been a substantial purchaser of this commodity over the past 20 years for the benefit of the Bureau and the benefit of the company; and I believe that there is reference in the files that the Bureau has sold short term emergency or maintenance power to the Otter Tail Power Company. This is another advantage of the arrangement and the interchange arrangement between the Basic Bureau system and the Otter Tail system.

Q. Insofar as the delivery of power over the Otter Tail system to Bureau preference customers is concerned, I take it in looking at GX-443 what you are saying is that the power flows from the Bureau over the main Bureau grid to these little red dots, these little points of interconnection between Otter Tail and the Bureau, then from there to the ultimate Bureau preference customer is accomplished over the Otter Tail subtransmission network?

A. Subtransmission and transmission. Otter Tail has some 115 kv and 230 kv that is also involved in the overall power transfer scheme but basically that's correct.

[T. V, 55] Q. Now, focusing specifically on the City of Hankinson, North Dakota, and using GX-206 as a guide, perhaps the first thing we ought to do is point out where on GX-206, at least, possibly where Hankinson is located.

A. To the best information available to me, Hankinson is located about an inch due east of Forman on Exhibit 206. It can be represented as being an orange circle right next to

a heavier orange line and also next to a blue circle on the right.

Mr. Anderson: I wonder, Your Honor, if it might be easier, I think it would be easier for us to proceed here if Mr. Field and I could just quickly agree as to where Hankinson is on this map and put a circle around it and we will have one map which has a circle on it, and we will all know what we are talking about.

The Court: I have it designated, according to his description.

Mr. Anderson: This is the circle we put on.

The Court: Is there a circle there now?

The Witness: There is a yellow circle there now.

By Mr. Anderson:

Q. Is it a dot?

[T. V, 56] A. No.

Mr. Anderson: This is the reason we made the other map up, Your Honor, because the cities aren't shown on this one.

The Court: Mr. Field will maybe be tolerant if we use the other one. What number is that that shows it?

Mr. Anderson: Exhibit 440.

The Court: I see Hankinson, yes.

Mr. Field: The circle which counsel put on Exhibit 206, is this the official map?

Mr. Anderson: Yes. That is not the one in the record. Maybe we could give it a special marking, 206-A.

Mr. Field: There is an orange dot and a blue dot side by side. Where you put the circle is where Hankinson is, according to your information and the blue dot is an RSR substation, I believe?

The Witness: Yes.

Mr. Anderson: Perhaps before we go any further here

we should have Mr. Trommershausen explain for us what these little different colored dots signify.

By Mr. Anderson:

Q. Would you do that?

A. Referring to the code on the original map from [T. V, 57] which this insert was taken—

Q. GX-205?

A. 205, those are symbols for substations and they are color coded to give some assistance on ownership. But the problem is that there are so many utilities that the same color code had to be used for several. But as far as we are concerned here, that yellow dot is represented as a part of the Otter Tail system.

Q. The little blue dot next to it, I take it, is RSR?

A. That is correct, or some other ownership.

Mr. Anderson: Mr. Jaeger tells me that we keep saying yellow whereas in point of fact it is orange.

By Mr. Anderson:

Q. Would you agree with that?

A. I would agree with that. I am color blind.

Q. Assuming that the town of Hankinson wants to set up a municipal power system, and assuming that the first thing it looks at is the possibility of self-generation, supplying its own power, in your opinion, Mr. Trommershausen, does self-generation represent a feasible type of power supply for a town such as Hankinson?

A. No. At the present time, the standard type of generating equipment for a town of that size, the utility needs of a town of that size would either be a relatively [T. V, 58] small gas turbine or Diesel engines, and we would be taking a step backward in this day and age, where we are trying to put in large efficient units, trying to meet the air pollution and

water pollution standards, where we are developing major transmission grids, it would be a step backward to now set up an isolated operation, carry our own reserve generation, by having two units to serve the needs of one, and unless there were other serious factors such as a very unreliable power supply or exorbitant cost, I would not recommend that a town the size of Hankinson attempt to proceed with an operation with local isolated generation.

Q. Suppose the town decided it wanted to try to buy some power at wholesale from Otter Tail. Would you show the Judge how delivery of power sold at wholesale by Otter Tail would be accomplished to the City of Hankinson, using GX-206, if you would?

A. Well, Hankinson is now served by an existing 41.6 kv transmission lines that extends from Forman, eastward to Wahpeton. That line is now serving the Hankinson load and it would be the logical facility to continue serving that load on a wholesale basis.

Q. Now, suppose the town decided it wanted to become a wholesale purchaser of power as a preference customer from the Bureau of Reclamation. Starting with GX-443 and eventually moving to 206, would you show the Court how [T. V, 59] delivery of power would be accomplished in that circumstance?

A. Well, delivery of hydro power would probably come from the Garrison unit over the 230 kv system to Jamestown.

Q. You are talking about the Bureau's system?

A. Yes, and then over the Bureau's 115 kv system from Jamestown to Forman, and at Forman the Otter Tail system is interconnected, Otter Tail 41.6 kv system is interconnected and power could move from Forman where it would leave the Bureau system and go into the Otter Tail system and go east-

ward over the existing Otter Tail 41.6 kv north; that is, physically it could so travel.

Q. Now, suppose the town chose to attempt to purchase power at wholesale from RSR Cooperative. Would you, using those same two maps, 443 and 206, would you show us how the power in that sort of arrangement would be brought to the town?

A. Well, RSR, as I understand it, is a member of Central Power Cooperative. So I presume that RSR would make arrangements with Central, who, in turn, would make arrangements with the Bureau so that Bureau power would go into the Otter Tail system at Forman for the account of Central and be delivered over Otter Tail's 41.6 kv system to the RSR substation, at which point the power would be under the ownership of RSR, and they, in turn, would deliver it to Hankinson.

[T. V, 60] Q. Finally, suppose the town decided that another way of getting the power needed was to build a line from the town to the Forman substation. Could you give us your opinion as to the feasibility of a town such as Hankinson building the line itself to effect an interconnection between the town and the Bureau substation at Forman?

A. Well, in the first place, there are already two parallel lines between Forman and Hankinson. You can't tell from this map and I don't know personally how far apart the heavy orange line is north of the existing 41.6 kv line.

Q. They are both Otter Tail lines?

A. Yes. So by inspection of this map there would have to be a third line going from Forman to Hankinson, and that line, again, would be a radial facility unless it was extended by arrangement to a point where it could connect to another

facility of equal capacity so that in case the line failed, service could be brought in from the other direction.

Q. Assuming it was just a line built from Forman to Hankinson?

A. Yes, sir, the cost of such a line built only for the purpose of serving the existing Hankinson load and reasonable load growth would be, in my opinion, too high to be considered by the town of Hankinson.

Q. Well, have you made an estimate as to what the cost would be to Hankinson of constructing a line from Hankinson [T. V, 61] to the Bureau substation at Forman?

A. Yes, I have, and I must preface by remarks by stating that these are preliminary cost estimates because I have not been in the field to check the construction conditions. We do, however, keep a record of construction costs and we have what we call a construction cost manual which was last prepared in 1968 and needs some updating because of inflation.

So I assumed a 39-mile single pole 41.6 kv transmission line using 266.8 MC MACSR conductor. The 1968 cost of that line would be about $7800 per mile. Right-of-way might possibly cost a thousand dollars a mile, engineering and overhead $500 a mile, for a total cost of $9300. I think it would be reasonable to escalate for the period 1968 to the present time five percent per year, which makes a cost of $10,700 per mile. That multiplied by 39 miles would cost the city about $418,000, round.

Now, at the Hankinson end you would initially put a reasonably small substation there. I have here a two and a half to three and a half megawatt substation, 41.60 kv to 12.5 kv at an estimated cost of $57,000 field cost, plus escalation, plus engineering, overhead and interest during construction for a cost of $81,000, and you need a terminal connection at the Forman substation to the Bureau grid. It's not known whether

the Bureau would furnish this or [T. V, 62] whether under present conditions Hankinson would have to provide it. Based on escalated costs, I believe that terminal would cost about $61,000. Now, the total cost of those three facilities that I have mentioned would be about $560,000.

Q. That is just to get the power to the town? The town will still have to build a distribution center?

A. That is correct. These are wholesale delivery facilities.

Q. Now, moving to the town of Elbow Lake, Minnesota, the first thing we ought to do here is to see if we can figure out which one of these orange dots on GX-206 is close to Elbow Lake. Perhaps we can do that by referring to GX-440 and 439 which shows all the towns.

[T. V, 63] Mr. Anderson: Mr. Field and I have consulted on the circle and we are agreed that the circle is as I put it right here on GX-206. I think, Your Honor, maybe I better mark this document which has these two circles on it as GX-206A so the record will show what we are talking about.

Let the record show I'm offering as GX-206A a map which has two circles which have recently been placed upon it by me, one showing the location of Hankinson, North Dakota, and the other showing the location of Elbow Lake, Minnesota.

(GX-206A offered in evidence.)

The Court: Absent objection, it may be received.

Mr. Field: No objection.

The Court: It may be received.

(GX-206A received in evidence.)

The Court: Will you indulge me for a moment since I am the sole fact trier here, and I manifest my judicial ignorance by going back again to Hankinson and see if I understand things right. Is it Hankinson here?

The Witness: Right here.

The Court: Over here?

The Witness: Here.

[T. V, 64] The Court: Does the RSR line now serve Hankinson?

The Witness: The Otter Tail 41.6 kv line serves Hankinson. RSR—

The Court: Forman?

The Witness: RSR is the owner of these two substations which are also connected to the Otter Tail system and are now being served by wheeling from the Otter Tail system.

The Court: I see. I understand. Sorry. Thank you.

By Mr. Anderson:

Q. Now looking at Elbow Lake, Mr. Trommershausen, the first question is whether, suppose Elbow Lake decided to supply its own power, set up its own generator, operate it and supply its own power and distribution system, in your judgment does such a power supply arrangement make sense for a city the size of Elbow Lake?

A. Except for, as an interim arrangement, as I mentioned with respect to Hankinson, in my judgment, a city the size of these towns, I mean systems the size of these towns cannot expect to operate a viable, financially successful distribution system with long-term dependence on diesel generation.

Q. Suppose the town then decided to explore the possibility of buying power at wholesale from Otter Tail. [T. V, 65] Would you explain to the Court how delivery of power at wholesale from Otter Tail could be effected to Elbow Lake?

A. Well, as shown on the Exhibit GX-206 there is now a 41.6 kv transmission line going directly or very close to Otter Tail. This is the line that originally—excuse me, by Elbow Lake. This is the line, same identical line that originally

served Elbow Lake when it was a retail customer of Otter Tail Power Company; and after Elbow Lake was unsuccessful in its attempt to buy wholesale power, the connection was severed and Elbow Lake now operates as an isolated, independent system dependent solely on two diesel engine generators.

Q. Well, now, suppose Elbow Lake decided to become a preference customer of the Bureau and buy its power wholesale from the Bureau. Would you trace for the Court the process by which delivery of Bureau power would be accomplished to Elbow Lake?

A. Well, as in the case of Hankinson there is a physical electrical path at 230 kv from the Garrison plant to Jamestown to Fargo and on south to a town designated as Morris which is on map 206 about an inch south of the orange dot which we are using to indicate the location of Elbow Lake.

Q. Is Morris an interconnection between the location of an interconnection between Otter Tail and the Bureau?

[T. V, 66] A. Yes. Morris is a point of interconnection shown on Map GX-443 and it's also included as a point of delivery in the Otter Tail-Bureau contract. So Bureau power can enter the Otter Tail system at Morris physically.

Q. Then what would happen from that point?

A. From that point it would flow northward over an existing Otter Tail 41.6 kv line that goes reasonably close to Elbow Lake on its way to Fergus Falls where it's connected back into the basic grid system of the Otter Tail Power Company.

Q. Now, suppose the town attempted to purchase power at wholesale from United Power Association, how would United Power Association accomplish the delivery of power to Elbow Lake?

A. Well, there probably are a couple of ways that it could be done. United could make arrangements with the Bureau

so that in exchange for United delivering power to the Bureau at some point, and this is hypothetical, that the Bureau would deliver power to United at Morris and then an arrangement would have to be made under a wheeling contract to move power north from the Bureau's connection at Morris on up to, over the Otter Tail 41.6 kv subtransmission line to the town of Elbow Lake.

The other would be to build a transmission line from the Elk River system to Elbow Lake and as best to my [T. V, 67] knowledge on the capacity of the UPA system, that would be a rather lengthy transmission line.

Q. Would you say that would have feasibility?

A. That would not have feasibility.

Q. Now, you are aware, are you not, of the fact that Otter Tail and UPA are parties to an integrated transmission agreement, are you not?

A. Yes, sir.

Q. Now, how would power be delivered to Elbow Lake as you understand that contractual arrangement pursuant to that contract between or among others, Otter Tail and UPA?

Mr. Field: That's an exhibit, isn't it, Mr. Anderson?

Mr. Anderson: It is.

The Witness: I don't know how or whether—

Mr. Field: Exhibit 40 is the United Power Association transmission service agreement between it and several companies.

By Mr. Anderson:

Q. You have a copy of it there?

A. Yes. When I indicated that I did not know whether this transaction was possible under this agreement, I didn't find any provision whereby Otter Tail is required to wheel power

for these type of customers under the agreement. [T. V, 68] This is a broad type transmission service agreement between the companies and does not seem to facilitate the transaction that you have described to me here.

Q. Now, suppose Elbow Lake decided to try to buy some power at wholesale from Runestone Electric Cooperative. Would you explain to the Court how delivery of power from Runestone to Elbow Lake could be accomplished?

A. Well, based on GX-206, Runestone does not appear to have subtransmission facilities in the area of Elbow Lake. There is shown about three-quarters of an inch due east of the circle that we have marked as Elbow Lake, a short blue line extension with a blue circle labeled CPA. So I would presume that that is the facility now owned by CPA that could be used for service to Runestone; and that being so, power would still have to move from that blue facility over the orange facility westward to get to Elbow Lake, and it would seem to me that Runestone or CPA would have to make arrangements with Otter Tail Power Company to wheel the power from that section of line owned by CPA to Elbow Lake.

Q. Now, is Runestone a member of CPA?

A. That's my understanding.

Q. And would the arrangements for delivery of power to Runestone and this area be embraced within the document we have marked as GX-22 which is the integrated transmission agreement between CPA and Otter Tail Power Company?

[T. V, 69] A. Well, based on my reading of this agreement it would appear that Runestone and CPA would have to secure the approval of Otter Tail in order to sell power on a wholesale basis to Elbow Lake.

Q. In order to arrange delivery of the power?

A. Delivery of the power, correct.

Q. Well, suppose the town of Elbow Lake turned Basin Electric Power Cooperative and sought to have Basin sell the power wholesale. How could Basin accomplish delivery of power to the town of Elbow Lake?

A. Well, I have first-hand knowledge having participated in the negotiation of the contract that Basin Electric under its contract with the Bureau has the right to use the surplus capacity up to 200 megawatts in the existing Bureau system for the payment of an annual wheeling charge which is calculated on a postage stamp rate over the entire eastern division of the Bureau of Reclamation. So Basin would have the right to take power from its thermal plant at Stanton, North Dakota, and request the Bureau to wheel part of that power to the Morris substation of the Bureau at which point the Bureau is connected to the Otter Tail system.

From the Morris substation up to Elbow Lake Power would have to move either over the existing facility of Otter Tail, existing subtransmission facility of Otter Tail or over a new facility to be constructed by someone, a [T. V, 70] duplicating facility.

Q. Well, suppose the town of Elbow Lake decided to build a line to connect itself with the Bureau substation at Morris. Would you give us your opinion as to the feasibility of the town of Elbow Lake building a line for the sole purpose of connecting the Elbow Lake system with the Forman substation—or the Morris substation of the Bureau of Reclamation?

A. Yes. With the same qualification I placed on the estimate for Hankinson, because I have not been in the field to view the construction problems, I would note that there are already three lines going northward from Morris to the direction of Elbow Lake, and I would have some reservations about costs of right of way of putting a fourth line through there

now, but notwithstanding that I have used the same cost estimates assuming that it's 29 miles, or that you could find right of way for a line that would reach between Morris and Elbow Lake and would be approximately 29 miles in length at $10,007 per mile, would be $310,000.

Now, I will put in the one step larger size substation at Elbow Lake because of the small incremental cost difference with a substation costing $85,000 with escalation. Not knowing who would furnish the terminal facility in the Bureau substation at Morris, I have added another $61,000, the same figure I used at Hankinson, and I would come up with a total cost of this project of $446,000.

[T. V, 71] Now, cost is not the sole matter of consideration here, because here, again, these are estimates for a radial line, a line that does not have two-way service except as such service can be provided for a number of years by using the existing Elbow Lake generation to back it up. At such time as the load at Elbow Lake exceeded the reasonable capability of their two generating units, this line would have to be extended to some other facility in order to provide loop service in case of an outage.

Q. As I understand the problem of radial lines, if you are connected by a radial line your source is over here, something goes wrong with that source, and you are out of power?

A. You have a complete blackout, that is correct.

Q. Whereas, if you have loop service and connected on two ends, then you have assurance that if one source on the one side is out, the other source will pick up and provide the power?

A. Yes. There is always, of course, the possibility of, with a tornado going in the direction of a line, to take out the line on both sides, but that's rather remote and there is less likeli-

hood of that than there is for some situation to cause the outage of the radial line which would put the town in the black.

Q. Well, now, as you look at GX-206, you notice that [T. V, 72] some of these Bureau lines pass fairly close, and this is shown more closely on 440, some of the Bureau lines pass quite closely to towns served at retail by Otter Tail.

Now, suppose you have a situation where you have a 230 kv Bureau line passing adjacent to a town which has, say, 500 people in it, no substation there at all. Could you give us your opinion as to the feasibility of a town in that situation tapping to the Bureau 230 kv line so as to be able to obtain Bureau power and so as to have power for its municipal system?

A. In my opinion, it would be entirely unfeasible, and I can perhaps demonstrate that by giving a range of costs of making such a connection. I have to give a range of costs because the hypothetical question that you asked, it is not known what type of protection the Bureau of Reclamation engineers would require on the major 230 kv bulk transmission line for a substantial tap as you have suggested.

A complete protection scheme in which there would be protective breakers or circuit breakers put on both sides of the tap, using a reasonably small transformer, could cost to the order of $800,000. For a city of 500, it would not be feasible. If the Bureau permitted you to tap the line and only put in protection for the substation transformer that you would propose to use to serve a city of 500, the cost would be to the order of half a million dollars, [T. V, 73] and this, too, is prohibitive. So in my opinion, you would not consider it with the availability of other underlying subtransmission systems, and an engineer would have to look very hard at finding ways and means to use an existing 115 or 41.6 kv facility before you

tapped one of these major transmission lines for such a small duty.

Q. In other words, what you would have to do is create a little substation to serve the town?

A. That is correct.

Q. The town cannot use power which is delivered at 230 kv, as I understand it?

A. It is not possible.

Q. It has to be stepped down through a process so that eventually it reaches what voltage?

A. Probably 12,000 volts, from 230,000 volts you would have to step it down to 12,000 volts. I have never known in the Missouri Basin area of such a substation having been built.

The Court: Is this a good time for us to recess for about ten minutes?

Mr. Anderson: Yes, Your Honor.

(Recess taken.)

By Mr. Anderson:

Q. Before the recess, we were talking about a hypothetical situation where a town of about 500 people [T. V, 74] located adjacent to a 230 kv line, the feasibility of tapping that line so as to obtain power from it.

Now, suppose we have a situation where we have a 230 kv line, no substation, no existing substation in the area, and we have a town of, say, about 500 people located 15 or 20 miles from the 230 kv line.

Now, in your judgment, would that town be able to feasibly tap the 230 kv line so as to obtain power from that line?

A. In my opinion, no, and I can support that by adding to the estimates that I gave previously. Assume that your hypothetical town of 500 is 20 miles. You would add to the $800,000 estimate I gave previously or the $500,000 estimate,

you would add 20 miles times $10,700 a mile or add another $214,000. Now, on top of this, you would have to step down at the end of that 20-mile section from 41.6 kv to, assume, again, 12,000 volts, if that is the using voltage of the town, and again you have another 80,000 added to that. So you can see in the first instance I gave you you would be up to a million dollars and in the second instance you would be up to three-quarters of a million dollars, which is just out of the question for a town of that size. There's got to be a better way to do it.

[T. V, 75] Q. So in making sure I understand this, in the situation we have been talking about, the first thing the town would have to do is in effect construct a substation at the point of interconnection with the 230 kv line, step the power down?

A. Right.

Q. And the line it would build to transport the power from that substation to the town would be, I think as you indicated, 41 kv?

A. That's right.

Q. Then once the line reaches the town then there has to be another substation to step it down in order to effect delivery in the town?

A. Yes. Now, the other alternative could be, but again this leads to proliferation of lines, you could step it down at the point of contact and extend a 12 kv line from that step-down substation the 20 mile distance. Well, again, you would have the problem of a 20-mile radial line, 12 kv with limited capacity. In my opinion it's just not good engineering.

Q. So in addition to the problem of cost here, you have the problem of reliability assuming it's a radial line?

A. That's right.

Q. Mr. Trommershausen, how do you define the term wholesale sale as that term is commonly used in the electric [T. V, 76] power industry?

A. Well, a wholesale sale as I have come to use it, is a sale that's made by one utility to another. The purpose of the transaction is to provide power from one party to the other that the other party can resell to its retail customers, whether they be residential, commercial, industrial or whatnot.

Q. A sale for resale, is that another way of putting it?

A. Sale for resale, right.

Q. Now, are there different varieties of wholesale sales in the electric power industry?

A. Yes, there are. And as we get farther and farther into this complex power pooling situation, there are new terms and new concepts coming up all the time, but let's begin with some of the more routine sales.

First there is what they call a requirement's sale. This is a sale, for instance, where a cooperative or a municipality decides to purchase all of its power from a single wholesale power supplier in which case the wholesale power supplier for the term of the contract must agree to provide whatever power, what total power requirements the purchaser needs.

A second type of sale of which many are made involves partial requirements. A partial requirement's [T. V, 77] sale is one wherein one utility has some generation that's still usable, but he doesn't want to continue to expand his generation using small, inefficient, high-cost units. In that event, he would find it economically advantageous to buy a portion of his future power requirements for load growth from another wholesale supplier, and in that event, the parties would enter into a partial requirement's wholesale power contract.

Then there are other refined situations coming into being because since power grids are getting so expansive and cover time zone changes and cover seasonal changes, it has been possible to sell what they call seasonal power. Some people have their load in the summertime and they can use a block of power very efficiently in the summertime. Other utilities have a winter peak and they can use a block of power for a four- to six-month winter season, and so it's common now in many parts of the country to have seasonal sales.

There are other sales which in this area are called participation sales. This has come about because people are joining hands and building large, efficient generating units and take, for example, one owner who builds a unit larger than he can absorb within his own load, he will sell out a block of that power to another utility for a specified period of time. Generally speaking, those sales [T. V, 78] are based on the output of the unit under contract and are not classified as firm power since the purchaser has to carry his own reserves.

There are other sales being made under formal contracts where you provide emergency service during the loss of a generating unit due to an unscheduled outage.

And there are other sales being made written on a prearranged basis, you schedule an outage to maintain a major machine, and so you would buy firm power on a weekly, monthly or seasonal basis from another utility for maintenance power.

So I think these generally describe the type of sales that are now being made in the industry.

Q. Now, have you had occasion, Mr. Trommershausen, to review the special municipal electric service agreements which Otter Tail has entered into with the towns to whom it provides wheeling service?

A. Yes. I have reviewed them generally.

Q. Now, I show you GX-3 which is the agreement between the Village of Tyler and Otter Tail, and I ask you to look at it and tell us whether in your judgment that contract is in part a contract for the provision of a sale for resale arrangement?

A. Yes. This contract which is entitled a special municipal electric service agreement provides for not only [T. V, 79] the wheeling of a block of Bureau power at the maximum rate of 400 kilowatts, but it also provides that for needs of the city above its generating plant of 900 kilowatts, that wholesale power is available from Otter Tail Power Company under a service schedule and rate included in the agreement.

Q. Well, looking specifically at the contract, would you point to the sections of it which you have denominated as sales for resale type provisions?

A. Well, basically the fact that Tyler is a retailer of electricity, I don't know of anything else that it could do with the electricity, it purchases either from the Bureau or the company than to resell it. Tyler is not a consumer, a consumer of the commodity of electricity. It sells it and its retail consumers consume or use this commodity. So basically this is a—the entire arrangement is a wholesale contract for resale.

Q. Well, apart from the wheeling aspect of the contract, the contract as I understand it, in part, is an arrangement whereby Otter Tail delivers power sold for resale by the Bureau to the town. Would you point to anything in addition to that wheeling part of the contract which in your judgment is indicative of the wholesale sale's type arrangement?

A. Yes. Section 3.3.

Mr. Field: I was going to say, [T. V, 80] while I don't agree with your characterization of it, was going to suggest 3.3. Is that what you were looking for?

The Witness: Yes. Section 3.3 on page five.

By Mr. Anderson:

Q. What's that entitled?

A. "Firm electric service." And this service can only be used by Tyler for resale.

Mr. Field: I object to the witness characterizing a service. Let's take the language of the contract if that's what's pertinent here rather than some characterization of it.

[T. V, 81] The Court: Do I have the same exhibit as you all, 3.3 or 3?

Mr. Field: It's Exhibit 3.

Mr. Anderson: We are now talking about Section 3.3 which is on page 5 of Exhibit GX-3. I withdraw that. I am just asking his opinion as an expert, Your Honor, as to whether his judgment as a man who spent the better part of his life involving himself in both power supply and analyzing matters of this sort, his opinion that this provision is a wholesale sale type provision.

The Court: You may answer the question.

The Witness: The answer is yes.

By Mr. Anderson:

Q. Now, looking at another contract, this one, one between Otter Tail and the Village of Shelly, this is dated August 25, 1970, GX-11.

A. I have it.

Q. What is the term of that contract?

A. It's ten years from December 21, 1970.

Q. Now, in your opinion does that contract contain within it a provision for the sale of wholesale power by Otter Tail to Shelly?

Mr. Field: Now, if Your Honor please, we object to these questions as to his opinion as to [T. V, 82] what the contract

provides. It's a generalization that is going to be referred to, presumably, later. This characterizing a contract, actually special municipal contracts, as was true of Tyler and presumably Shelly is similar in this respect, provide for Otter Tail furnishing service over and above what they need from the Bureau or from their own generating station upon notice and as may be subject to the ability of Otter Tail to furnish as determined by Otter Tail and so forth, I mean the contract provisions are quite specific. To characterize that as an ordinary wholesale sale in my opinion is not the function of the witness, it's the function of the lawyer and the Court.

The Court: You may answer the question.

The Witness: I consider the Shelly contract which does provide that when Shelly has exceeded its Bureau allocation, that again the company notice and by firm electric service; and when they do that the contract further states that the municipality agrees to take and pay for all of the electric power required by the municipality and use them in the municipality system in addition to power it receives from the Bureau. Now, if the problem we are having is used in the municipality system, the only use a municipal system can have is to buy power for reselling. So with that explanation I consider this a wholesale sale for resale.

[T. V, 83] Q. And now, using Exhibit GX-11 as a basis, would you compute for the Court the cost to Shelly of Bureau power? I am including the cost of the power and the cost of delivering it to the municipal gate, tell us what the total cost in mills is.

A. Well, not having the specific information on the load characteristics of Shelly, but assuming it's average for other preference municipal customers served by the Bureau, Shelly would pay the Bureau about 5 mills per kilowatt hour. It would

pay one and a half mills to Otter Tail for firming service, which is a charge which has been paid by municipal systems and cooperatives in the area. There is a special connection facilities charge because Otter Tail was required by a step down substation from 41.6 kv to the city's voltage, which would cost Shelly another 5 mills, and as I read the contract, Shelly has to absorb the line losses in the Otter Tail system which I estimate to be about .5 mills and you total those figures and the cost of Bureau power to Shelly comes out to 12 mills per kilowatt hour.

Q. Did you say the cost to Shelly of line losses was 5 mills or point 5 mills?

A. Point 5 mills.

Q. Using that same contract, namely, the one between Otter Tail and Shelly, would you compute for us what it would cost, what it will cost Shelly to purchase power at wholesale [T. V, 84] from Otter Tail, delivered to the town?

A. Well, again using the rates schedule that is included in the Shelly contract and on the assumption that Shelly has a 50 percent load factor in this instance, the cost of power, without reference to any fuel adder, since I don't know what that fuel adder is for the Otter Tail system at this time, it would cost about 14.8 mills per kilowatt hour to buy power from Otter Tail delivered to the city gate.

Q. One last question. I show you GX-441 which is the annual report, form 1 annual report filed by Otter Tail with the FPC for the year end December 31, 1970, I will ask you if you will look at that and tell me whether there is any indication in that document as to the volume of wholesale sales by Otter Tail Power Company in the calendar year 1970?

A. I find two references. The first appears on Page 409, line 11, under a table that reports the operating revenues, the

kilowatt hours sold and the average number of customers per month for the Otter Tail system for the calendar year 1970.

On line 11, it shows that the operating revenues for the year "for sales for resale" is $1,550,200 and there were 215,308,600 kilowatt hours sold.

Now, it shows that both in operating revenues and kilowatt hours sold, this was an increase over the previous year.

[T. V, 85] Then if you turn again to page 413, which is account 447 of the Federal Power Commission entitled "Sales for resale," these sales figures are found at the bottom of the page with the supporting data preceding it.

Mr. Anderson: That is all I have, Your Honor.

The Court: Was that Exhibit Number 440?

Mr. Anderson: 441, Your Honor.

I am sorry, I forgot to give you this. It is page 409 and page 413.

The Court: You may examine, Counsel.

Mr. Field: If Your Honor please, before I get into my broader scope of cross examination, I would like to refer to a few items, starting with the end of the direct examination, and that is FPC one report for 1970, Exhibit 441.

CROSS-EXAMINATION

By Mr. Field:

Q. You referred to two pages, 409 and 413 as showing sales for resale and called our attention to the fact that the same totals were on pages 413 and 409, so they are the same transactions, I gather?

A. That is the assumption I made.

[T. V, 86] Q. We have more detail on page 413 as to what makes up those totals, as I see it? Do you recognize that?

A. Yes, I do.

Q. Are you familiar with the Upper Mississippi Valley Power pool?

A. Generally familiar, yes.

Q. That agreement is also an exhibit in this case?

A. That is right.

Q. Whether you have got a chance to review it—

A. I have reviewed it.

Mr. Field: What is the number of that, for the record, the main contract? There are supplements.

Mr. Anderson: GX-23, I believe. That is the basic agreement.

By Mr. Field:

Q. In your examination of the Upper Mississippi Valley Power Pool agreement, do you recognize that the transactions that are recorded in total with certain labels on page 413 of this FPC one represent transactions under the pool agreement?

A. That is my understanding, yes, sir.

Q. I see. They are not sales to Shelly or to any of these other towns that have special municipal electric service agreements, are they?

[T. V, 87] A. No, and as I indicated earlier, any power that you purchase from anybody else has got to be resold. There is no other purpose for buying power or generating power.

Q. If we can just answer the questions we will get along a little faster.

You recognize there are no sales to any municipalities reported in 1970?

A. I agree to that, right.

Q. As a matter of fact, as you may know, there has never been a kilowatt hour sold under this schedule 3.3 in these special municipal contracts such as Shelly, as an example, or don't you know that?

A. I haven't checked that because I assumed up to now these 17 customers of the type of Shelly are still using their Bureau power and haven't had to call on the company for the purchase of power that is possible under that contract.

Q. So you wouldn't have any quarrel with the assertion that there hasn't been a kilowatt hour sold under that schedule, called for or sold, either one?

A. I have no first-hand knowledge that there has been.

Q. Do you recognize this, too, that these transactions under the Mississippi Valley Power Pool, which presumably are like other pools in some respects, at least, have special characteristics, among them being that they are reciprocal, the rights and obligations go both ways?

[T. V, 88] A. Yes, sir, I understand that.

Q. So that one time, one of the members of the pool may be interested in buying what you call, for example, participation power and at another time be interested in selling it, depending upon the capacity of generation of one supplier or another and perhaps other factors?

A. Yes, that goes with the transactions that are working out, right.

Q. And the price at which these pool transactions are made are set by the agreements entered into which make the formation of the pool? In general, that is true, isn't it?

A. Yes, which agreement, I understand, and the rates attached, service schedule attached are approved by the Federal Power Commission.

Q. I will accept that. They are filed with the Federal Power Commission?

A. Yes, sir.

Q. What I am getting at is, the schedule for exchange of these area services under the pool arrangements are fixed by contract, and, as you say, they are filed with the Federal Power Commission but they are a contractual arrangement to start with fixed by the parties?

A. Yes, sir.

Q. Yes. And membership in the pool is from different [T. V, 89] segments of the electric industry? By "segments," I mean both investor-owned and cooperatives in the Upper Mississippi Valley Power Pool, at least?

A. Yes, only those two categories.

Q. And would you recognize this, that the prices at which the interchange of these various services, the prices are fixed at a value that will encourage the flow both ways between the parties?

A. I haven't participated in the negotiations of those rate schedules, sir, but I would presume that in all workable power pools, there's got to be mutual benefits and it's possible that rates could be set to achieve mutual benefits.

Q. And to encourage the flow both ways of the different services?

A. Yes, over a period of time.

Q. Yes, over a period of time.

A. On a take-your-turn basis, yes, sir.

Q. And I suppose you would also recognize that the costs of the different suppliers in the pool would be at different levels, that is, the cooperatives would have a different level of costs than the investor-owned utilities in the same pool?

A. Yes, but I presume those differences were taken care of during the negotiations that established the rates that are now set in the service schedule.

[T. V, 90] Q. First, you recognize that there is a difference?

A. Yes.

Q. And if the services are going to be exchanged on a flow one way one time and a flow another way another time, they would need to be fixed as something that was mutually agreed upon that would be advantageous for the flow both ways, which wouldn't necessarily be associated with the costs of either party?

A. Well, not the specific cost at the time. I presume when you average this out, as you must over a five or ten-year period, that you would recover your costs. Otherwise, you wouldn't enter into the transaction.

Q. Perhaps I don't make myself clear. If the benefit of the pool is to achieve a reciprocal exchange of these services, the benefit would be the fact that when you sold you expected to get it back in due course of time? Wouldn't that be one of the major benefits of the arrangement?

A. Get the commodity back or the dollars back?

Q. The commodity?

A. Yes, yes.

Q. And in order, for example, to make it advantageous a cooperative to purchase power from an investor-owned utility, both of them belonging to the pool, in exchange for the investor-owned selling to them when the reverse excess capacity was in existence the price would have to be fixed at [T. V, 91] level that would encourage the flow both ways, isn't that true?

A. Yes.

Q. To make myself clear, if a cooperative's costs were lower than the investor-owned utility's cost for the commodity, which I guess you will concede at the time is the usual situation, won't you?

A. I can't concede your use of the term "usual," Mr. Field, because there's a transition in the power program of cooperatives. As you know, the REA has announced they are no longer able to meet the financial needs of cooperatives. The cooperatives have set up their own bank. In addition, many cooperatives are now negotiating with the institutions on Wall Street to borrow money for expansion of generation, certainly, and possibly transmission, to the point where eventually their capital costs may equal yours.

Q. You are looking to the future. I am talking about the present and the past.

A. Yes, but you asked me, you used the word "Usual."

Q. I see. Well, let's construe "usual" to apply to the present or past. Will you agree then?

A. Will you read the question back?

The Court: I don't think you have finished your question, Mr. Field.

Mr. Field: Probably not, Your [T. V, 92] Honor. I will start over again.

By Mr. Field:

Q. Assuming that the cooperatives' costs at the present time and in the past are lower than the investor-owned utilities, members of the same pool; unless the price at which power is intended to flow both ways is set at a level that's attractive to the cooperative, in other words, not in excess of their own costs, the purposes of the pool of reciprocal and exchange and flow both ways would be impeded, would it not?

A. Yes, it would, Mr. Field, because one of the reasons why a cooperative could afford to pay the higher costs of a private utility for two or three or four years was that they could then defer building their own plants and when they brought their own plant on the line they would already have accumulated

some ready load so it could be more nearly loaded and operate at a higher and more efficient level for the duration of the life of that plant. So these, of course, are the considerations that I am sure have led to the cooperation that exists in the Upper Mississippi Valley Power Pool.

Q. In any event, we would expect the revenue from these sales, whichever way they go in any particular year, not to be related in any material way to the costs of the respective parties in exchanging the sales, isn't that true?

[T. V, 93] A. I don't think I could buy that broad generalization, Mr. Field.

Q. Could you buy a generalization which I will try to restate in a little more acceptable fashion, if I can, to you, that the price at which the exchange of power is provided for under the pool is a price that is intended to encourage the flow of power both ways at the same level of price?

A. Yes.

Q. That being true, the level of that same price to the coops and the investor-owned utilities must necessarily be some figure other than the costs of either party, isn't that true?

A. Well, as you say, this is a negotiated price. How it relates to cost of service of each of the parties is something I would have no knowledge of.

Q. I see. To get back to the basic question, I guess, this FPC one under "Sales for resale" includes a requirement to report pool transactions under that classification, and that is why they are here, is that right, sir?

A. Apparently, but there was no qualification—

[T. V, 94] Q. There is no sale for resale in Otter Tail Power Company's FPC-1-1970 of any wholesale sale to a municipality for resale, is there?

A. On these pages, no.

Q. Any place in it?

Mr. Anderson: Are you talking about a requirement's sale or talking about a firming power sale, Mr. Field?

Mr. Field: Any sale to a municipality for resale.

The Witness: I was guided by the heading that you filled in on line 447, sales for resale.

By Mr. Field:

Q. Where are we now?

A. On page 409.

Q. Well, that's just a summary of 413, isn't it?

A. Yes. But perhaps that could have been made more clearer that it's Upper Mississippi Valley Power pool sales and not sales to municipals. Had that been footnoted, if you thought it necessary to do so.

Q. Well, now, we know it's Upper Mississippi Valley Power pool sales, don't we?

A. Right. Right.

Q. So my question is there are no sales for resale to municipalities in the Otter Tail Power report for 1970, [T. V, 95] that's true, isn't it?

A. In your detail there are no sales listed.

Q. Well, there are no sales to municipalities for resale reported in this report, can't you adjust yourself to that question, that's true, isn't it?

A. Yes.

Q. Counsel asked you some questions about Elbow Lake and coming to that area of your direct testimony, and as your consideration and I believe you pointed out in your direct testimony, Elbow Lake previously was served at retail by Otter Tail Power Company?

A. That's my understanding. Yes, sir.

Q. And I believe you mentioned in your direct testimony that Elbow Lake put in its own municipal electric system?

A. Yes, sir.

Q. And the source of power in the system that was set up was local generation by Diesel engines?

A. Yes, sir.

Q. And I suppose you are familiar with the fact that Elbow Lake has a proceeding pending before the Federal Power Commission to require Otter Tail Power Company to furnish an interconnection with the Elbow Lake system?

A. I have knowledge that such proceedings are under way.

Q. One of your partners, Mr. Mayben of R. W. Beck [T. V, 96] and Associates, appeared as a witness in that proceeding, did he not?

A. He did.

Q. And I suppose in connection with your study of this matter you are familiar with the fact that Mr. Mayben testified in the FPC proceeding, among other things, in presenting a plan for an independent transmission line to bring Bureau power to Elbow Lake?

A. I am familiar that he did, right.

Q. Yes. Are you familiar with the fact that he used a cost per mile of $9,000 a mile instead of your $10,000, and aren't you familiar with that?

A. No. Mr. Field, I didn't have the breakdown of his estimate and I didn't check. In the estimates I gave I told you the source of them, and I must consider that his estimate was made earlier than today, probably as much as 18 months to two years ago, and so with the inflation we are now getting in transmission, even if Mr. Mayben was called to the stand, he probably would want to escalate his costs also.

Q. Perhaps Mr. Mayben's estimate was made as of the time that Elbow Lake was considering other sources of power. What I am getting at is we are sitting here in 1971 whereas the transactions that we are reviewing occurred some years ago?

A. Well, are you asking me to check, make my own [T. V, 97] independent check of Mr. Mayben's estimate?

Q. No. I am just suggesting that the figures of two years ago may have some pertinency because that's the time the issue came up and the request for additional sources of power?

A. Are you trying to get me to explain the difference between Mr. Mayben's estimate and mine, is that what—

Q. You are suggesting it's a matter of timing, aren't you?

A. Matter of timing that if his estimate were brought up to date, if it's lower now than my esimate, if he applied escalation from the time he made his estimate he might be pretty close to the one I gave you.

Q. If you de-escalated yours to the time when the matter came up for consideration yours might be lower?

A. That's possible except that the escalation has occurred in the last three years which—I mean, let me rephrase it. Within the last three years escalation has not followed the normal pattern. It's been much higher.

Q. I suppose I had better ask it this way. If we were considering what the cost would be as of 1968 we should use 1968 figures?

A. Yes.

Q. Now, Mr. Mayben suggested this independent transmission line is one of the alternate ways of furnishing [T. V, 98] additional sources of supply to Elbow Lake, did he not?

A. Yes. That's my understanding but it was not his recommended plan.

Q. I suppose we have to get into the testimony for that, but he presented it as one of the alternative methods.

A. Yes. Mr. Field, any engineer doing work for a client in the power supply field is obligated to develop as many reasonable alternatives as there are to a problem and Mr. Mayben followed that practice, I think developed three or four alternative plans and predicted the economic results.

Q. This is one of the reasonable alternatives then that you are speaking of?

A. Reasonable except with the qualification that he did put on the independent plan that it was a radial line that would eventually have to be extended or more generation put into Elbow Lake in order to achieve the degree of reliability he would like to see for that situation.

Q. Well, in the case of Elbow Lake, as you pointed out, on your direct examination, they have generation?

A. Yes, sir.

Q. So that as far as reliability is concerned until the load in Elbow Lake exceeds both engines the radial line would be a reliable alternative, would it not?

A. Yes. Except, Mr. Field, for the allowance that one of the Diesel generators has to be opened up and taken [T. V, 99] out of service for inspection and if down the road the load exceeded the capacity of the one generator when the other generator was down for its maintenance checkup and you had an outage on the line, Elbow Lake would be blacked out for the period of time you could restore service.

Q. You are talking about a two-outage contingency, are you?

A. Yes. I am talking about a one-Diesel unit undergoing maintenance and then a failure of the transmission line, which I recognize is a two-contingency situation.

Q. Generally for reliability, the one contingency situation is considered a fair basis for planning, isn't it?

A. That's correct. That's correct.

Q. Now, among your costs for Elbow Lake, you included an item of a substation, did you?

A. Yes, sir.

Q. And I guess that was also true in the case of Hankinson?

A. Yes, sir.

Q. There would need to be a substation in any event, would there not, whether the source of power is 29 or 40 miles away or on the 41,600 volt line that is closer to town, you need a substation in any event, wouldn't you?

A. If either town is going to be served from a 41,600 volt subtransmission line, yes, a step-down substation [T. V, 100] is needed.

Q. That's the substation you are talking about, isn't it, 41,600 volts?

A. That's correct.

Q. Substation?

A. Right.

Q. So that's an expense that would be involved if the town was served on the Otter Tail line that's adjacent to Elbow Lake, wouldn't it?

A. Yes. I see what you are driving for, Mr. Field, but there is the other possibility that if they were connected to the Otter Tail system, and under the Shelly agreement, for an annual charge Otter Tail would put in the substation, which it did for Shelly, that either Hankinson or Elbow Lake would not have to raise the new capital required to finance and install the substation. There would be that difference.

Q. Perhaps we could agree on that, somebody would have to furnish the money for it?

A. Yes, sir. Yes, sir.

Q. And the expense would be there?

A. Yes, sir.

Q. Are you suggesting that Otter Tail should spend the money instead of the municipality and then make a charge for it, is that what you are suggesting?

[T. V, 101] A. I am not suggesting that, Mr. Field. I mentioned there is a precedent for that in the Shelly contract in which, as I read the contract, Otter Tail is providing the step-down substation and charging Shelly five mills a kilowatt hour for all the Bureau power that goes through the Otter Tail substation into the city of Shelly's system.

Q. Well, in any event, I guess we can agree that the substation capital expense is an expense that would have to be advanced by someone?

A. Yes. I will agree with that.

Q. Regardless of what the source of power would be?

A. I think that's correct.

Q. Yes.

A. That's correct.

Q. Were you asked to investigate the source of power for Elbow Lake from East River Electric Cooperative?

A. No, sir.

Q. So you haven't given any consideration to that possibility?

A. No, sir.

Q. Are you familiar with the fact that under an order of the Federal Power Commission, Elbow Lake has the right to a short term interconnection with Otter Tail Power Company's system for their alleged shortage and/or emergency service?

A. I have read the record and know that there is such [T. V, 102] an order.

Q. Yes. And are you familiar with the fact that Elbow Lake has actually built such a line, at least the poles and wires are up?

A. No. The last I heard from Mr. Mayben was that since that decision is under litigation that Elbow Lake had some problem with the proceeding, and I don't have any further details than that, Mr. Field.

Q. I guess you aren't quite up to date—

A. No, sir.

Q. —then, are you?

A. No, sir.

Q. Mr. Martinson from Elbow Lake was a witness here the other day and told us that the line was built and the substation was ordered but you don't know those facts?

A. I don't know those facts. Right.

Q. I see. I presume you are familiar with the fact that the request of Elbow Lake before the Federal Power Commission for a long term interconnection which would involve presumably a consideration of a wholesale sale is still pending before the Federal Power Commission?

A. That's what I understand.

Q. I see. Now, what you have done in substance in answer to counsel's questions as to Elbow Lake and Hankinson too, was to trace what you say would be the path by which [T. V, 103] Bureau power or some other source of power would reach Elbow Lake or Hankinson under the existing facilities that exist at this time?

A. That's correct.

Q. I see. Have you given consideration to whether the existing facilities of the intervening suppliers are near capacity as far as their transmission facilities are concerned?

A. No. The Department of Justice has not provided me with power flow studies conventionally made by utilities. I do remember reading the testimony of Mr. Nye in which he made—in the FPC proceeding in which he carefully analyzed this problem, and one of the solutions which he has, which I would agree with, is that if the 41.6 kv line now serving Elbow Lake area and if Elbow Lake was to be finally connected to that substation transmission line, that the best solution to reinforce your system would be to put in the step-down substation from Otter Tail's 115 kv line, which goes very near your 41.6 kv line, it's a natural place to put that step-down transformation. Whether there is apt to be a shortage if capacity in your 41.6 kv facilities, it is a normal thing in the electric industry to add that capacity by simply feeding into your subtransmission line, as you have done in dozens of other cases, I am sure, on your system, from the next highest voltage level, which [T. V, 104] happens to be that 115 kv line on GX-206 that runs from Morris to Fergus Falls.

Q. Now, you have, I guess, volunteered some information that wasn't included in my question. But I would like to ask you about the subject matter you have just talked about.

If you have read Mr. Nye's testimony in the FPC proceedings, isn't this true, that he said that the capacity of the existing line was nearing the point where it would be all utilized for Otter Tail customers?

A. Yes, I do recall that.

Q. Yes. And as you have indicated, the plan to relieve that situation with or without Elbow Lake is a connection with the 115,000 higher voltage grid of Otter Tail and the construction of a substation at a considerable cost?

A. Yes, sir.

Q. Do you remember what the cost was as estimated by Mr. Nye?

A. This would be off the top of my head, but I think it was to the order of $800,000. If you want the exact figure for the record, I would have to go back to the testimony.

Q. Are you familiar with the fact that Mr. Nye stated that the necessity for the investment, whatever it was, would be accelerated by something in the neighborhood of two years, I believe it was, if Elbow Lake's load was to be added to that?

[T. V, 105] A. That's correct.

Q. So there are problems on the part of the owners and the operators of any transmission line as the years go on, their capacity, their planning and the areas which are to be served by them, and, in fact, that is a field you are particularly interested in, isn't it?

A. That is correct, and in this situation, a full economic study might show that if Otter Tail deemed that they were caused to put in the new substation ahead of time, it still might be better for Elbow Lake to pay, to reimburse Otter Tail for its out-of-pocket costs rather than to go to another plan which didn't fit into as sensible a plan as the one Mr. Nye worked out and have to bear those extra costs for the life of the facility.

Q. As a matter of fact, the plan that Mr. Nye worked out, that he recommended for Elbow Lake, was an independent transmission line along the lines that Mr. Mayben had with some extra considerations for additions during the next 20 years?

A. Yes, but I don't recall that Mr. Nye solved the problem of reliability. It was still a radial line.

Q. But supported by the Elbow Lake generating plant?

A. Until they were fully loaded.

Q. And then some provisions to take care of that? Don't you recall that?

[T. V, 106] A. Yes, I do recall he was going to add another 500 peaking Diesel to carry it for the next increment of time as an independent facility.

Q. The point I am trying to make is, he did present a solution for Elbow Lake without using Otter Tail's lines? That was the substance of his recommendation, isn't that true?

A. Yes, sir.

Q. And Mr. Nye considered that a feasible plan, did he not?

A. I recall that he did, yes.

Q. So, at least, there are other plans for furnishing additional power supply for Elbow Lake to the extent that it needs it or considers it needs it from sources in using other facilities other than Otter Tail's facilities? That is true, isn't it?

A. Yes, and there is the problem of proliferation of lines, why not make full use of the 115 and the 41.6 kv line that is there before you build a third line in the area.

Q. There may be differences of opinion as to the merits of this plan or that plan and there may need to be studies to evaluate from one standpoint or another, but the point is, there are other plans that at least some consider feasible for Elbow Lake to obtain an additional source of power? Wouldn't you concede that?

[T. V, 107] A. Yes, sir.

Q. Now, still speaking of the Elbow Lake situation and your direct testimony, you referred to the United Power Association, and you were asked questions about that potential source or possible source, and you referred to an integrated transmission agreement, Exhibit 40?

A. Yes, sir.

Q. Do you have that in front of you now for reference?

A. Yes, sir.

Q. That is a transmission service agreement between Northern Minnesota Power Association, Rural Cooperative Power Association, United Power Association, Northern States Power Company and Otter Tail Power Company?

A. That is what the report says.

Q. That is the contract?

A. That is what the contract says.

Q. Where is there any provision in this agreement that inhibits anyone from serving Elbow Lake?

A. Mr. Field, as I recall my testimony, I didn't find any provision that inhibited that.

Q. I am sorry, I misunderstood you.

A. I had problems with it from the standpoint of feasibility, except I did comment that if they used that, I recall now, if they used that short section of line that is labeled CPA to get from their system over to the Elbow Lake [T. V, 108] system, that that line is tied to the Otter Tail 41.6 kv, based on this map, and so I presumed that by going that route, CPA would have to get permission from Otter Tail to let its facilities be used by UPA to get UPA power over the CPA system and over the Otter Tail system to Elbow Lake.

Q. We start out with the proposition there is nothing about that in the agreement itself?

A. That is correct.

Q. You mentioned Basin Electric Power Cooperative in answer to Mr. Anderson's questions as another potential source of power for Elbow Lake, and I believe you referred to the contract between Basin Electric Power Cooperative and the Bureau of Reclamation in connection with that?

A. Yes, sir.

Q. You are familiar with that, are you?

A. Yes, sir.

Q. And that is an exhibit in this case, too?

A. Yes.

Q. Now, that contract between Basin Electric Power Cooperative and the Bureau involves extensive purchases of power from Basin to the Bureau, does it not?

A. You mean is Basin selling considerable amounts of surplus energy to the Bureau?

Q. Yes.

A. Yes, they are selling decreasing amounts as the [T. V, 109] unit number one is needed to meet its own loads, but it has sold not only a substantial amount of surplus energy each year in the off-peak hours at night, but it has also sold some short term firm which the Bureau commingled with hydro power and resold to others.

Q. Do you have any idea of the extent of those sales in the last year or two? How close are you to that operation?

A. Not too close, Mr. Field. Four or five years ago when they were getting started I used to attend their meetings every couple of months. They have staffed up with a completely competent staff to the point where they only call me four or five times a year now, so I don't have a day-to-day contact with their situation. I am, however, supervising some engineers in the Denver office who are making studies for Basin's third unit, and from that standpoint, I will be getting closer and closer into the daily situation as I attempt to understand the needs and justification for the third unit.

Q. I see. I guess that's the first we have heard of the third unit. Unit No. 1 is what is operating now?

A. Yes.

Q. Which you have referred to as furnishing energy to the Bureau of Reclamation?

A. Yes, sir.

[T. V, 110] Q. Unit No. 2 is, I guess, about ready to start construction, is it?

A. Yes. We originally planned that that line would be, that that plant would be ready for 1974. The Bureau asked that it be deferred for a year so as not to cause a power surplus in the area, and Basin did that. So the latest date is 1975, and I know that, Mr. Field, because our organization is designing one of the transmission lines that will connect the second unit into the Bureau system.

Now, when I speak of the third unit, I don't want to mislead you, because there is no assurance that the third unit will be a third unit in the existing plant—

The Court: Mr. Witness, I notice that when you answer questions you answer the question and then you go off into kind of a little junket of your own which doesn't seem to be pertinent to the question. I can see why you do go off into a little dissertation if it is going to be explaining the answer, but this last example is one where I think we get off the track.

The Witness: I am sorry.

The Court: I think you have an inclination to do that from time to time. It's all very interesting, but perhaps not pertinent. I think if you will just answer Mr. Field's question and let him ask more questions of you.

[T. V, 111] The Witness: Yes, sir.

By Mr. Field:

Q. The capacity of unit No. 1, is that around 200 megawatts?

A. Yes, net.

Q. The capacity of the second unit about to start construction is 400 megawatts?

A. That is installed capacity. I think they are counting on 350 megawatts, net sales to its members.

Q. Is there also capability above that?

A. Yes, there is a short overload capability above that.

Q. What I want to get at is the capacity of the second unit.

A. I think the nameplate of the machine is going to be 450.

Q. Now, the second unit when it comes on the line, the plan is to sell large blocks of that power to the Bureau of Reclamation, too, is it not?

A. Mr. Field, I think we have to make the distinction between power and energy.

Q. That is all right.

A. To understand the operation of the second unit, Basin is buying 280 megawatts of winter hydro peaking capacity from the Bureau because it has a winter peak, and [T. V, 112] Basin is going to use the surplus energy from its second unit to make the peaking capacity it buys from the Bureau usable to its members, and so the power that Basin will have for sale basically will be whatever surplus energy is not needed to go with its own hydro peaking.

Q. My question was, that will be a substantial amount of energy?

A. For a few years it will be a substantial amount of energy. By 1978 the projections are it will all be absorbed in Basin's own load.

Q. Well, these arrangements between the Bureau and—

Mr. Anderson: Your Honor, I am going to object at this point. I hate to intrude but we have already spent a considerable amount of time on the record asking the man from the Bureau, namely, Mr. Muller, all about this arrangement be-

tween the Bureau and Basin, and we have also last week had the opportunity to hear Mr. Grahl from Basin explain Basin's standpoint as to what this is all about. I submit we have already a complete record from representatives of the two organizations who are the contracting parties on this point. I don't know that it serves any useful purpose to pursue it further. It seems almost redundant.

The Court: Maybe it is prompted by your witness' voluntary answers about the thing. Then [T. V, 113] Mr. Field ferrets out a little bit after he gets started.

Go ahead, Mr. Field.

By Mr. Field:

Q. These arrangements between the Bureau and Basin are illustrative, aren't they, of what is called an implementation of base load thermal plants and hydro for peaking and the advantages that go towards using those two?

A. Yes. That is a very good example.

Q. Now, you spoke of a third unit that is being considered. What is the size of that unit?

A. That hasn't been determined, Mr. Field. The third unit studies which are for capacity beyond 1978, we are considering four, 500, maybe 600 megawatts at the most.

Q. Is that a thermal plant?

A. Right.

Q. That's continued planning on the part of Basin and I presume it's illustrative of other suppliers for a continuing supply of power and energy in this area?

A. Yes, it's necessary if you have a supplier responsibility to look ahead at least ten years.

[T. V, 114] Q. Now, as far as getting through the path that you described from Basin Cooperative to Elbow Lake, that's substantially the same problem you and I just discussed

as far as the path for the Bureau power getting to Elbow Lake, is it not?

A. That's right. That's correct.

Q. Turning our attention to Hankinson for a moment, are you familiar with this study that was made in 1964 by Central Power Electric Cooperative for RSR, Exhibit 334 in this case?

A. Yes. I was provided a copy of that yesterday.

Q. I see.

A. I have it.

Q. Exhibit 334 is a letter from Central Power Electric Cooperative to the manager of RSR Electric Cooperative dated January 24, 1964, is that the one you have?

A. That's right.

Q. Plan 1 that's attached to that letter involves a transmission line, the construction of a transmission line from Forman to Hankinson, does it not?

A. Yes.

Q. And the investment required for the line is there estimated at $5,000 per mile, 38 miles, or a total of $190,000. Do you see that on the sheet there?

A. Yes, sir.

[T. V, 115] Q. Perhaps those were the costs as of the time they were considering it in 1964?

A. That's all we can assume.

Q. Do you disagree with it?

A. I think they are on the low side.

Q. And I notice that the connection facilities, I think you called them that, at the Bureau on sub at Forman—terminal connection according to my notes you called it—the Bureau grid you estimated at $61,000 and on this central study the figure, if I read this right, is $25,000. Do you find that? It's in the same paragraph.

A. Yes. I am reading it, Mr. Field.

Q. I'm sorry.

A. Yes. I see that estimate.

Q. That's the figure that would be comparable to your figure of $81,000 as far as facilities are concerned, is it not?

A. No. This would be more comparable to my figure of $61,000 because this is the—

Q. $61,000, yes.

A. Because this is the terminal at Forman in the Bureau substation.

Q. I must have misspoken myself. It's comparable to your figure of $61,000?

A. Yes.

[T. V, 116] Q. Yes. That develops in the central study for this independent line, if I can call it that, in Forman and Hankinson, for a total of $205,000 which is comparable to your figure of $565,000?

A. Yes, sir.

Q. Have you any information as to the loading or capacity of Otter Tail's 41,600 volt line in the Hankinson area at this time?

A. No. Except that it's adequate because it's carrying the Runestone and Hankinson loads at the present time. How long in the future it can carry it I don't know the answer to that because I indicated we haven't had the results of any power flow studies that have been made on the Otter Tail system.

Q. That is, Otter Tail is serving Hankinson at retail?

A. Yes.

Q. At the present time?

A. Yes.

Q. But if there should be a change in suppliers, you don't have any information as to how much capacity there would

be taking into consideration the load growth of Otter Tail for its remaining customers in that line for the foreseeable future, you don't have that information?

A. Assuming that Hankinson completely separates from the Otter Tail system, is that the assumption you asked me [T. V, 117] to make?

Q. That's the assumption Mr. Anderson was asking you to make setting up a municipal system I believe.

A. Well, if you—I am confused here. If you take the Hankinson load off your system you will have capacity for an added number of years in your own system before you have to make any reinforcements.

Q. Well, what I am asking you is if you have any data as to what that capacity would be or for how long?

A. No. No, I haven't. No.

The Court: This may be an appropriate time, is it, Mr. Field?

Mr. Field: Yes, Your Honor.

The Court: We'll recess now and we'll see you at 10:00 in the morning, gentlemen.

(Whereupon a recess was taken until 10:00 o'clock A.M., June 8, 1971.)

[T. VI, 1]

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
SIXTH DIVISION
(Title Omitted in Printing)

The above-entitled matter came on for trial before the Honorable Edward J. Devitt, Chief Judge of the above-entitled Court, at Saint Paul, Minnesota, commencing at 10:00 o'clock A.M. June 1, 1971.

The following transcript contains the proceedings of June 8, 1971.

(Appearances as heretofore noted.)

[T. VI, 2] The Court: Good morning, gentlemen.

Mr. Field: May it please Your Honor, Counsel, Mr. Trommershausen. May I continue with my cross examination, Your Honor?

The Court: Yes.

Whereupon,

WILLIAM E. TROMMERSHAUSEN,

a witness having previously been sworn resumed the stand and testified further as follows:

CROSS EXAMINATION

(Continued)

By Mr. Field:

Q. Before we continue there is one thing that troubles me a little bit in yesterday's cross examination. You have a copy of the record there, do you?

A. Yes, sir.

Q. I want to refer to pages 98 and 99 of Volume 5 of our transcript, being the transcript of June 7, 1971. I will refer to just a part of it and then I want to ask you a question about it. On line 21 of page 98 I asked the question:

"So that as far as reliability is concerned, until the load in Elbow Lake exceeds both engines, the radial line would be a reliable alternative, would it not?

"Answer yes. Except, Mr. Field, for the allowance that one of the diesel generators has to be opened up and [T. VI, 3] taken out of service for inspection, and if down the road the load exceeded the capacity of the one generator when the other generator was down for its maintenance checkup, and you had an outage on the line, Elbow Lake would be blacked out for the period of time you could restore service.

"Question You are talking about a two outage contingency, are you?

"Answer yes. I am talking about a one diesel unit undergoing maintenance and then a failure of the transmission line which I recognize is a two contingency situation.

"Question Generally for reliability the one contingency situation is considered a fair basis for planning, isn't it?

"Answer That's correct. That's correct."

What troubles me, Mr. Trommershausen, is why you would suggest a two outage contingency as a detriment to the radial line to Elbow Lake when you recognize that from the standpoint of reliability a one contingency is the proper basis for planning?

A. Yes. Perhaps I can assist you in understanding of what I was trying to portray?

Q. You can assist me by answering the question. Do you recognize that a one contingency situation is a fair basis for planning?

A. Yes. Yes, I do.

[T. VI, 4] Q. And the situation that you suggested in the context as I got it as an item against the radial line with the Elbow Lake engines being in existence was based on a two outage contingency, you acknowledge that too?

A. Yes, I do.

Q. Perhaps you acknowledge that it was a mistake to have mentioned that then as an item?

A. No, not a mistake. The problem where we aren't communicating is that I was looking at the period when the load at Elbow Lake had exceeded the capacity of one generating unit and would have to depend on a second unit to take care of an outage on the transmission line, and if the second unit was not operable, there would have to be not a blackout, but

there would have to be curtailment. You have to bring the load in Elbow Lake back to what could be carried by the one remaining operable unit.

Q. But the two contingencies that you are talking about are, one, a failure of the radial line?

A. Right.

Q. And, two, a failure of the second engine?

A. Yes, sir.

Q. And in proper planning, it isn't considered necessary to take those two contingencies into consideration for reliability, is that true, sir?

A. That's true.

[T. VI, 5] Q. All right. Now, the same thing could be said of the looped line that has the service from two ways that you mentioned yesterday?

A. Yes, sir.

Q. There reliability you suggested, perhaps others too, is sustained because there is a feed from one way and also a feed from a second way, so with the one contingency outage, one line could go out and the other line would still supply service?

A. Yes, sir.

Q. So that's reliability?

A. That's reliability.

Q. If you were going to consider a two contingency outage there, you would be talking about a simultaneous outage of both lines, that isn't proper planning, is it?

A. That isn't proper planning. As I mentioned yesterday, you could lose both lines if you had a tornado go parallel with the line which is too remote to be considered in engineering planning.

[T. VI, 6] Q. As a matter of fact, the radial lines, while subject to some criticism from the standpoint of reliability,

have been used and are still being used in this area we are talking about for service, is that not true?

A. Yes, it is true, and this is the way transmission systems are designed progressively; the radial lines are built, but with the pressure ever coming on us to increase, for reliability closed loop circuits are built at a much earlier date now than they were five or ten years ago.

Q. The point I am trying to make is, they are used to bring service to the public in this area?

A. Yes, sir.

Q. Would you refer to Exhibit 438, which is the systems map of East River Electric Cooperative?

A. Yes, sir, I have it.

Q. By the way, is your firm or are you a consultant or adviser for the East River Electric Cooperative?

A. We are not.

Q. You are not?

A. We are not.

Q. Have you been?

A. Not with respect to transmission and system engineering.

Q. With respect to what, then?

A. We have been with respect to generation and the [T. VI, 7] earlier plans that East River had for generation.

Q. I see. Have you studied this map in connection with preparation for your testimony? It was mentioned in your direct examination.

A. Yes, I am familiar with it.

Q. And there are several examples of radial lines on the East River Electric Cooperative system as shown on this Exhibit 438, are there not?

A. At the present time, yes, but there are plans for looping these circuits.

Q. Are you familiar with what the plans are?

A. Generally.

Q. You said a minute ago that you weren't consulted about transmission lines. That is why I asked.

A. No, Mr. Field, may I explain that we are not consultants to East River on system engineering and transmission. We do undertake quite actively overall transmission plans of the Missouri Basin Systems Group, and in connection with that assignment, we do receive copies of systems studies prepared by other consulting engineers for several clients in the Missouri Basin, and because of the prominence that East River had for wheeling, I brought with me a copy of the engineering report which shows the planned additions in the next ten years for this East River system.

Q. You mentioned the Missouri Basin Systems Group as [T. VI, 8] being a concern that you do consult with or furnish services for?

A. Yes, sir.

Q. What is that group?

A. The Missouri Basin Systems Group is a planning group made up of the preference customers of the Bureau of Reclamation in the Eastern Division, plus the Bureau of Reclamation, and their activity consists of long range planning for generation and transmission to preserve the integrity of the existing Bureau grid and to add whatever thermal generation is needed to the grid to provide a continuing and dependable power supply.

Q. And you are involved in assisting them in that study and planning, are you?

A. We loan staff engineers from the Denver office to the executive director of the Missouri Basin Systems Group to conduct such studies as he directs.

Q. Is that Mr. Barritz?

A. No, Mr. Marritz.

Q. Would you spell that for the reporter, please?

A. M-a-r-r-i-t-z.

Q. His position with the Missouri Basin Systems Group is what?

A. I don't know his exact title. I believe he is considered to be the executive director.

[T. VI, 9] Q. I see. These planning studies, if I describe them correctly, are going forward and are in progress now, are they, and have been for some time?

A. There are no studies currently under way at present except that Mr. Marritz is a participant in the so-called North Central studies which is a broad area study being sponsored by the Department of Interior.

Q. Whether it is under the more limited scope of the Missouri Basin Systems Group or the broader scope of the North Central power study, the planning is going forward for the preservation of the integrity of the supply of power and transmission in this area?

A. Yes, but at the present time I don't know of any effort that our staff is directing toward any present study. I believe a fair answer to that statement would be that any local planning has been put in abeyance until everybody can see the results of the North Central study, and thereby guided as to what would be the appropriate next step.

Q. Perhaps I don't ask it appropriately. I wasn't particularly asking you whether you or your firm were presently engaged in studies, but the studies are going forward by the groups that you mentioned presently on a broader scope by the North Central power study?

A. If there are any studies under way it is by individual members of the Missouri Basin Group, that is what [T. VI,

10] I am trying to say. I don't know of any activity, planned activity of the systems group on a specific study.

Q. Take the North Central power study, that is currently going forward, is it not?

A. Yes, sir.

Q. You are familiar with it, even though you may not be a consultant in it, aren't you?

A. Yes, I am familiar from the standpoint that our clients who are participating in it discuss the general progress from time to time.

Q. And the general planning of that study involves a sufficient source of generation and transmission to maintain the integrity of the supply in that area, isn't that true?

A. That is the objective. Whether it will accomplish that, we will have to wait for the results.

Q. Well, that is the purpose of the study?

A. Yes.

Q. And it's generally the purpose of the planning that you mentioned yesterday that it is incumbent upon suppliers to plan at least ten years in advance?

A. Yes.

Q. I suppose we could illustrate for the benefit of the Court some radial lines on East River Electric Cooperative. Can you pick out just a few for illustration? Have you got this Exhibit 438 in front of you?

[T. VI, 11] A. Yes, I have it in the reduced size.

Q. It's not important how big it is, I guess.

Starting at the bottom, you are probably familiar with the lines more than I am, but do you see the line going from Wagner to Harrison on the lower left?

A. Yes, sir.

Q. Then a line going from that over to Parkston, is that a radial line?

A. Yes, on this map. I would guess if I would refer to their long range plan it would be closed in to Tripp or up to Mitchell.

Q. What I am getting at, as of now, is that a radial line?

A. Yes.

Q. And has been for some years?

A. I wouldn't know how many years.

Q. Well, at least several years?

A. Yes, several years.

Q. Next to it, to the right, to the east on the map, is the line going to Tripp and Menno, and is that also a radial line?

A. Yes, sir.

Q. Going north and west, do you see the town of Storla, or a substation, I am not sure what these are, and down below, Plankinton?

[T. VI, 12] A. Yes, sir.

Q. Is that a radial line?

A. Yes.

Q. And so we could pick out illustrations on the map, there are several of them?

A. Yes, sir.

Q. In your testimony, several times you used the word, and counsel did in his questions, and I am not sure whether it is "infeasible" or "non-feasible."

A. It means the same.

Q. I see. Which was the word used by yourself, "infeasible"?

A. "Infeasible" or "unfeasible" or "non-feasible."

Q. So that we understand what you mean by using that word in the context that you used it, you say a line or a plan is infeasible, and I don't suppose you mean that it's not capable of being constructed or used physically?

A. No.

Q. Physically incapable, you don't mean that?

A. No.

Q. Is it economically infeasible, is that the context in which you used that word?

A. In some cases, yes.

Q. In all cases?

A. No.

[T. VI, 13] Q. I see. What other meaning would you have besides—you say it doesn't mean it's infeasible to actually build the line or construct it or use it, that isn't within the meaning. You say it does refer to economics. What other meanings would there be?

A. Whether it's engineeringly compatible with an electric system, you would want to build something that could be extended and eventually become part of the system. You wouldn't want to build something that would have to forever stand by itself.

[T. VI, 14] Q. I see.

A. Because the planning for the electric system is a progressive one, step by step.

Q. I see. That still doesn't mean it couldn't be built and used, does it?

A. No. No.

Q. And what the future plans or engineering conceptions of what the use might be in the future might be a subject of some debate among engineers and planners?

A. Yes. But when we develop a plan for a client, we like to see that it's leading someplace and that it is the first step of a five step plan that each of the steps are compatible.

Q. Well, take now for example, the radial line that Mr. Mayben, your associate in your firm, suggested for Elbow

Lake. Are you familiar with the fact that he suggested that might be useful for development of a municipal grid in that area?

A. Yes. At that time.

Q. Is that the type of thing you had in mind just a minute ago?

A. Yes.

Q. Yes.

A. But with respect to Mr. Mayben's study, he pointed out clearly there was a study in progress under way to [T. VI, 15] determine whether such a grid could be accomplished in the area, and he also indicated that a preferable plan, rather than build an independent grid for several municipalities in that area of Minnesota, that it would be preferable if a joint plan could be used similar to the one which is now in effect between Otter Tail and CPA in which each party to the agreement builds new facilities on a planned, agreed upon program basis in proportion to the use it makes of the facility with the objective that in the end there is not needed a wheeling charge or a cash payment. I mean each party carries his share of future transmission responsibility and costs, and I need to provide that supplement for a full understanding of what Mr. May ben's plan was. This is one of four.

Q. Well, I'm glad to have your comments. I now need to explore your comments somewhat. You refer to the Cooperative Power Association, Otter Tail Power, Northern States Power integrated transmission agreement arrangement?

A. Yes, sir.

Q. I see. That was one suggested means of coordinating facilities made by Mr. Mayben, is that what you are telling us?

A. Yes, sir.

Q. But another one was, wasn't it, which was the purport [T. VI, 16] of my question, that a radial line such as he sug-

gested, or an independent transmission line, I guess he called it, from Morris to Elbow Lake to serve Elbow Lake could have benefits for future planning for a municipal grid. You also suggested that, did he not?

A. Yes, he did.

Q. Yes. That's the type of thing you refer to a minute ago as, can this be used in some future planning?

A. Well, but there must be some reasonable, legal and business relationship possible, and Mr. Mayben's study hasn't come to the point even as of this date where he has found that the municipal grid that he had considered for that portion of Minnesota can become a reality.

Q. Yes. But my question is a simple one. As of this testimony in the FPC case, he suggested that as a possible benefit of the independent transmission line to Elbow Lake?

A. Yes, sir.

Q. Yes. Now, I will ask you to look at the map Exhibit 439.

Mr. Field: Are those all available to Your Honor, these maps?

The Court: Yes.

By Mr. Field:

Q. Do you have it in front of you?

A. Yes, sir.

[T. VI, 17] Q. You mentioned in respect to your direct testimony that the municipality of Tyler, T-y-l-e-r, which is one of the towns underlined in orange, if that's the color, towards the bottom of the map 439, can you find it?

A. Yes, sir.

Q. Now, Tyler as shown on the map is an isolated municipal operation, is that true?

A. It's shown on the map here. That is a town that, as I recall, has some generation, and I would have to refresh my

memory with the contract to see if it provides whether there is an intervening facility or another wheeling arrangement to connect Tyler to the Otter Tail system.

Q. You have the contract and referred to it and certain parts of it yesterday. Let's get it out again.

Mr. Anderson: GX-3.

By Mr. Field:

Q. Do you have that there?

A. GX-3. Yes.

Q. That is the Tyler contract, isn't it?

A. That's correct.

Q. Special municipal electric service agreement?

A. Yes.

Q. Yes. Does that help you or I have to give you some time to look at it, of course. Excuse me for asking a question meanwhile. I suggest that perhaps pages 9 and 10 [T. VI, 18] may be helpful to you.

A. I think page 9, this contract, provides that Otter Tail and the City of Tyler will connect their facilities at a point near Lake Benton, Minnesota.

Q. On 439 that's just to the left or to the west and a little south of Tyler?

A. Yes. So I would take it from that that Tyler owns the facility between its city and the Otter Tail system at Lake Benton.

Q. My information is that's correct, and that's the way it looks to you?

A. That's the way it looks to me from the record.

Q. That is a radial line from Tyler to Lake Benton, isn't it?

A. Right. I presume it is. It isn't available to me on the maps as to whether it goes anyplace else.

Q. And there is an example of a municipality itself building the independent radial line to make the connection, that's correct?

A. To the Otter Tail system.

Q. That's true, isn't it?

A. Yes.

Q. And Tyler also has some similarity to Elbow Lake in that it has local generation?

A. According to contract it has a limited amount.

[T. VI, 19] Q. Yes. So the town that you or counsel or someone picked out of these several towns involved here, namely, Tyler, does present an example somewhat similar to Elbow Lake in that the town has an isolated system with local generation and it actually built an independent radial line to connect up in order to receive Bureau power?

A. By wheeling over the Otter Tail system.

Q. Well, however it's coming there, they built the interconnecting line?

A. Yes, sir.

Q. Yes. How many miles is that of that interconnecting line?

A. Based on the scale on this map it appears to be eight to ten miles, going by township measurements.

Q. I see. My information is 12. Would that be in the ballpark? You say eight to nine, we won't argue about that part. Anyway, it's a line of that general length?

A. Yes, sir. Yes, sir.

Q. Now, continuing on with the situation at Tyler, this contract that you referred to, Exhibit 3, expires when?

A. It expires March, 1962; March 22, 1962—no, excuse me, 1972.

Q. It expires—

A. Ten years from that date, from the 1962 date.

Q. It expires next year, March?

[T. VI, 20] A. Yes, sir.

Q. Now, you referred in this contract to a section 3.3 which starts on page 5 of Exhibit 3?

A. Right.

Q. You refer to it in the context of a sale for resale as I recall it, do you recall that?

A. Right.

Q. Now, the section has a heading of firm electric service. Do you see that?

A. Yes, sir.

Q. Now, I am going to read a sentence of it to furnish a foundation for a question.

"Otter Tail agrees to sell and deliver and the municipality agrees to take and pay for such firm electric service as the municipalities may need in addition to the amount supplied by the Bureau and/or produced by the municipality's generating plant and subject to the ability of Otter Tail to furnish such firm electric service as may be determined from time to time in the sole judgment of Otter Tail."

[T. VI, 21] Now, two or three questions with reference to that.

Number one, you are familiar with the fact, are you not, that the Bureau has now announced it will take care of the total requirements of its present preference customers through 1977?

A. I am familiar with that.

Q. So there would be no need for Tyler to exercise whatever rights it has under this clause, at least up until 1977, that follows, doesn't it?

A. That follows.

Q. Question number two, this commitment on the part of Otter Tail is subject to Otter Tail's ability to furnish the service as Otter Tail determines in its sole judgment, do you recognize that?

A. Yes, sir.

Q. That hardly amounts to a firm commitment to furnish the service, does it?

A. No.

Q. It has a label of that kind, but when you read the language of it, we find out that it's subject to availability and decision in the judgment of one of the parties, is that true?

A. Right.

Q. By the way, with reference to Tyler, did you do what you did in connection with Shelley, did you compute, [T. VI, 22] assuming a 50 percent load factor, what the municipality of Tyler would pay for this type of service we just referred to under the schedule?

A. No, I didn't. It's a different rate schedule, complicated by the use of generation, and so I didn't attempt, Mr. Field, to make a computation, and Shelley was the most recent contract that the Department of Justice provided to us.

Q. I wasn't asking for the reasons why you didn't do it. I asked you if you did it.

A. No, I didn't.

Q. Can you tell with your background and experience in the industry and rate schedules if the level of rates in Schedule 3.3 in the Tyler contract is higher than it is in the Shelley contract?

A. This would take a little inspection. With respect to demand, the Tyler rate is higher for the first 800 kilowatts of demand. It is slightly lower for above that. It's on a monthly basis, $2.00 per month. It's assuming that this requires a

ratchet that would be $24.00 per year per kilowatt compared to $23.16 in the Shelley rate. There is a complicated block step in the energy charge, but it appears that the energy rate is about the same. It's in effect a little better than a cent a kilowatt hour for the first 350 million kilowatt hours, whereas, I believe you would get that for one cent under the Shelley contract and excess [T. VI, 23] under the Tyler contract is nine mills per kilowatt hour and excess under the Shelley contract is five mills per kilowatt hour, so in that regard the Shelley contract has possibly a lower energy charge.

Q. I guess, generally speaking, we could agree that the rate in the Tyler contract is at somewhat a higher level than the Shelley contract?

A. Yes, I would agree to that based on the inspection I have made.

Q. I think, and I am skipping a little bit around, but while we are on this subject matter, when you discussed the Shelley contract, you computed that if Shelley called for service under this type of clause, which they haven't, but if they did, that at a 50 percent load factor, it would come out at 14.8 mills at the city gate?

A. Yes, sir.

Q. Is that an infeasible amount for a municipality to pay at the city gate economically, speaking of cost to municipalities?

A. No, it's not infeasible. It's higher than comparable rates in the area charged by other utilities.

Q. It's considerably higher than getting service from the Bureau of Reclamation or from a cooperative, is it not?

A. When you say "considerably" in comparison, I mean based on Shelley, there was about a 2.8 mill per kilowatt hour [T. VI, 24] difference.

Q. I guess we got to talking about Shelley a little ahead of time for my organization of your cross-examination, but while we are on that subject matter, Shelley has a peculiarity in that there is a five mill facilities charge?

A. Yes.

Q. That is not true generally in these special municipal electrical agreements, is it?

A. No. I believe that facility charge is dependent entirely on the physical facilities that the city and Otter Tail decide are necessary to connect the two systems. Now, under the contract between Otter Tail and the Bureau, it expressly states that the Otter Tail wheeling charge of one mill per kilowatt hour does not cover whatever costs are needed to connect a 41.6 kv line to a Bureau preference customer, nor does the firming rate for which Otter Tail charges the municipality one and a half mills in some cases for firming Bureau power, that is not intended to cover the connecting facilities. So the Shelley contract is an example of where the Otter Tail Power Company had to put in facilities to effect a physical interconnection, and I presume the negotiators agreed upon the charge for that facility between the town of Shelley and Otter Tail was five mills per kilowatt hour.

Q. Well, let's put Shelley aside for a moment. I am [T. VI, 25] coming back to that and want to talk more about that with you, but I would like to stay with Tyler for just a minute so we don't get off the subject matter too far.

Are you perhaps familiar with the Lyon-Lincoln Cooperative?

A. In a general way.

Q. That is one of the members of the East River Cooperative, is it not?

A. Yes.

Q. From the reports you get, are you generally familiar with the fact that East River Electric Cooperative has recently constructed a transmission line to serve Lyon-Lincoln Electric Cooperative?

A. Yes, there was built a 115 kv transmission line from the Bureau substation at Granite Falls to the vicinity of the town of Marshall.

Q. That facility was intended to and actually does now serve the Lyon-Lincoln Electric Cooperative's needs, does it not?

A. According to the map, yes, sir.

Q. And the Lyon-Lincoln Cooperative lines are right adjacent to Tyler, are they not?

A. Are you speaking of East River or—

Q. Perhaps I was confused. I guess East River is what I should have asked you about.

[T. VI, 26] A. I would need a minute or so because, again, some maps do have the cities listed and others do not. I will have to make a reconciliation.

Q. My associate suggested that Exhibit 438 will help us, which is the system map of East River.

A. Yes. Right.

Q. It shows the line that you just mentioned as being recently built?

A. It shows the Granite Falls-Marshall line, and I do find there is a Tyler substation on the East River map, but you can't tell from this map how near that substation is to the City of Tyler.

Q. Well, first, this line you mentioned as being 115,000 volts that East River built, is that not stepped down to a 69,000 kv level?

A. Yes, it does, and so there is no confusion on your part, Mr. Field, our firm did the electrical design of the Marshall substation.

Q. The name is Field.

A. I am sorry, Mr. Field. Our firm did the electrical design of the Marshall substation in our Denver office. It's for that reason I know the characteristics. Our assignment there was limited only to that substation.

Q. You did some services for East River, then, on this line?

[T. VI, 27] A. Only for the substation, design services.

Q. So, then, we know that the new East River line is stepped down to 69,000 volts before it gets to the Tyler substation?

A. Yes, sir.

Q. That is shown on the map, isn't it?

A. Right.

Q. First, this line built by East River to serve Lyon-Lincoln Cooperative needs was a line that was claimed to duplicate existing lines? You talked about duplicating lines yesterday? That is an example of the claim that it did duplicate existing transmission lines? Are you familiar with that?

A. No, I am not.

[T. VI, 28] Q. Are you familiar with the fact that the controversy in that regard was in court?

A. Yes.

Q. In a case brought by Northern States Power Company and Otter Tail Power Company against the officials of the REA Administration?

A. Yes. Mr. Field, I know that because our work was delayed pending the court proceeding, but we did not participate in any of the details or any of the arguments or justifications for that case.

Q. From your general knowledge of it, are you not familiar with the fact that the action was based principally on the ground that the administrator had not complied with his own regulations in granting the loan for this line without giving the present suppliers the opportunity of making a reasonable proposal to furnish the transmission service from existing investor-owned facilities?

A. I don't have knowledge, first-hand knowledge of that.

Q. You have knowledge, I suppose of the fact that either Northern States or Otter Tail or the two of them together did furnish the services that got the current to the Lyon-Lincoln Coop area before this new line was built?

A. I do believe I had an appreciation that Lyon-Lincoln was originally served as part of the Minnesota system before it became a member of East River, but the [T. VI, 29] details of what those transactions were and why East River decided to proceed with its own facilities are unknown to me.

Q. Well, are you familiar with the fact that this case was in this court?

A. Not this specific court. I knew it was in Federal Court.

Q. Yes. And are you familiar with the fact that the government took an appeal from the decision—

Mr. Anderson: I object, Your Honor. I think we have gone far enough with this. This man has already told us he doesn't know any of the details about this from his own memory of it and whatever happened is in the record, in the books.

The Court: It seems quite peripheral. Do you have some point in mind?

Mr. Field: It's an example of duplication of facilities which was attempted to be prevented and wasn't successful for the reasons that are shown in the decisions.

Maybe I can volunteer by stating, subject to check by counsel, that the decision of this court is reported in 248 F. Supp. 616, and the Circuit Court of Appeals of the Eighth Circuit is reported in 373 F. 2d 686.

[T. VI, 30] By Mr. Field:

Q. These new facilities that were built by East River were built with capital loans from the REA of, in that case, approximately 5.9 million dollars. Are you familiar with that?

A. I am not familiar with those details. I know that, only know the substation was built in accordance with REA requirements, and our design contract had to be approved by REA. As to the source of the money and loan commitments and basis for that, Mr. Field, I have no knowledge.

Q. Don't you generally keep in touch with these things? Aren't you familiar with what's going on in the area? I am surprised you don't know those fundamental things, Mr. Trommershausen.

A. Mr. Field, I can't keep up with every power supply problem that exists in the Missouri Basin, and as I mentioned in my testimony yesterday, I now serve the firm's six offices all over the United States and it would be impossible for me or any other man to be familiar with everything that happens in every county in the Missouri Basin.

Q. Well, I don't suppose you would dispute the fact that the line was built with REA furnished funds?

A. I know that, Mr. Field, I know that the substation was built. Whether East River used general funds is beyond my knowledge.

[T. VI, 31] Q. One more question about Tyler and this new line built by East River with the substation now right adjacent to Tyler. You would expect, would you not, that that particular service would now be taken over by East River?

A. I have no basis to know that it would.

Q. That is upon the expiration of this contract next year?

A. I have no knowledge of what the plans are of either party.

Q. One more question on that subject, Mr. Trommershausen. With your experience, background and knowledge of the situation with the East River Electric Cooperative service being at the city gate of Tyler, and with the costs you know are related to it an REA facility, wouldn't you expect that service to be taken over by the cooperative?

Mr. Anderson: I object, Your Honor. I think now we are leading into the area that I think Your Honor has already indicated you didn't want to get involved in, namely, a debate as to the history and purposes and whatever of the whole REA concept. We feel that all of that is alien to the facts in this case, and we see no point in re-raking those old coals if that's what Mr. Field is trying to do here. I see no point whatsoever in him doing it here.

The Court: It's argumentative. [T. VI, 32] Sustained.

Mr. Field: On that ground I don't wish to be heard on that ground, but on what counsel mentioned I would like to be heard.

The Court: I think it's argumentative, what he thinks about it.

Mr. Field: Because we do believe that, if I may say this, Your Honor, that the matter of duplicating facilities, alternate sources of power, are matters that have been gone into on direct with this witness and that was the area I was exploring with reference to Tyler, one of the towns that they picked out.

By Mr. Field:

Q. When we recessed yesterday we were discussing Exhibit 334.

A. I have it, sir.

Q. Which for convenience in identifying it in the record is the Central Power Electric Cooperative letter to RSR Electric Cooperative which submitted two plans for bringing Bureau power to Hankinson?

A. Yes, sir.

Q. And we have at least partially covered plan 1 yesterday, I believe?

A. Right.

Q. Now, plan 1 as studied out by or as suggested by [T. VI, 33] Central Power Electric Cooperative, produced a cost for a radial line from Forman to Hankinson, at least Central considered reasonable, in fact, and I quote:

"This plan would result in the cheapest method of bringing service to Hankinson without the use of the Otter Tail Power Company system."

Do you recognize that?

A. Yes, sir.

Q. The criticism Central made of this plan was it was a radial line which is a subject matter we have been discussing at some length?

A. Right, sir.

Q. Now, plan 2 was a study made by Central to furnish two-way service or loop the proposed service to Hankinson by continuing on to a connection with East River Electric Cooperative line I believe?

A. Or in the alternative to Minnkota.

Q. Well, very well. Let's see. There are three lines that are talked about here of suppliers other than Otter Tail that are in the Hankinson vicinity, namely, Forman, which is 38 miles away; East River Electric Cooperative which is 18 miles away; and the Minnkota Electric Cooperative line which is 30 miles away, that's stated at least?

A. Thirty-eight miles, that's what mine shows—no, you are right, 30 miles, right. That's all right.

[T. VI, 34] Q. So we have three sources of power, at least, that are located in that as described?

A. As described, that is correct.

Q. In addition to Otter Tail Power Company's facilities?

A. Right.

Q. Now, I thought they used the shorter of the two distances, which is East River 18 miles in making this loop or two-way service plan. Am I wrong there?

A. I would have to compute that, sir.

Q. Look at the first paragraph of Plan No. 2, the third line.

A. The third line, first paragraph?

Q. "But the shorter distance will be used in this study." Perhaps we are not looking at the same piece of paper.

A. I thought you said the first paragraph. I don't find it there—oh, yes, I find it. Okay.

Q. So the loop that was suggested would go to East River under this study, then, would it not?

A. Apparently that was their assumption.

Q. That is the basis of this study?

A. The basis of this study, yes.

Q. All right. Now, without going through the details, and I know you have looked at this in connection [T. VI, 35] with preparing for your testimony, the suggested cost of the loop or two-way service to Hankinson on the basis that would not increase the cost of RSR was one cent or ten mills per kilowatt hour, is that true, sir?

A. Would you read back the question?

(The question was read.)

The Witness: Yes, Hankinson, they say here that Hankinson would have to pay ten mills per kilowatt hour for that

plan if the cost to RSR were not to be increased over present costs; that is my understanding of what this says.

By Mr. Field:

Q. That is the net result of this plan No. 2 as far as cost is concerned as Central studied it out, isn't it?

A. Right.

Q. Is that an infeasible level of cost for Hankinson?

A. For transmission cost, yes.

Q. What would be added to it for service to Hankinson besides the ten mills?

A. You would have to add the basic purchase price for power.

Q. Which in this case would be from the Bureau, would it not?

A. Bureau or East River. I am not sure that it says.

Q. Well, isn't the plan to get the power from the [T. VI, 36] Bureau at Forman but the line is extended on just for reliability to East River?

A. On that basis, yes.

Q. The Bureau rate is substantially five mills, I think you told us?

A. Right.

Q. So the total costs, then, with Hankinson under this Plan No. 2 would be substantially 15 mills?

A. Yes, sir.

Q. Is that an infeasible cost for Hankinson?

A. It was above the going cost in the area in 1964 when this estimate was made.

Q. That doesn't answer my question. Is it an infeasible cost?

A. When compared to results from generation, it would be about a toss-up.

Q. You still don't answer my question. Is it infeasible, in your judgment?

A. No.

Q. You have told us a few minutes ago that it was not infeasible for Shelley, I believe it was, to pay 14.8 mills under Otter Tail's schedule and now you tell us that 15 mills is infeasible for Hankinson. How do we reconcile those two statements that you have made?

A. I don't believe I said this was infeasible. I [T. VI, 37] said compared with Diesel it is infeasible.

Q. Oh, I understood you to say it was not feasible.

A. No.

Q. It is feasible, then?

A. Yes.

Q. So this is a feasible plan for Hankinson, then, in your judgment as studied out by Central?

A. As compared with Diesel.

The Court: Maybe it's time for us to recess.

How are you getting along making up that chart for me?

Mr. Anderson: We have done a draft of it but it's not quite in finished form, Your Honor. We hope to have it finished by the time our half of the case is over with, and we will give it to you then.

The Court: It would be helpful to me all the way along here if I could refer to it.

We will recess for about ten minutes.

(Recess taken.)

[T. VI, 38] By Mr. Field:

Q. This morning we, or I, rather, put Shelley aside for a moment, and now I would like to come back to the Village of Shelley if I may for just a few questions, and in particular call your attention to your testimony of the fact that there was

a facilities charge of five mills in connection with Shelley. Do you remember that, of course?

A. Yes, sir.

Q. Do you know what the facilities are that are related to that five-mill charge?

A. Only to the extent that there is a map.

Q. Which map are you looking at?

A. Attached, there is a map attached to the Shelley contract, a copy of it.

Q. I see. That's Exhibit 11, is it?

A. Yes, sir.

Q. Well, from that source can you tell us what facilities are related to that charge?

A. Schedule 3ab covers the matter, Schedule 3ab of the contract. Do you wish me to read it?

Q. Just let me turn to it first. Now that you call my attention to the sheet, maybe I can ask some questions that may shorten it up.

The connection facilities that are included in this facilities charge that you mentioned include apparently [T. VI, 39] two substations?

A. Includes one substation in its entirety. The other substation was a problem I had, it's probably an allocated situation because this map doesn't tell me where the 41.6 to 24 kv step-down substation is located and what other services are obtained by Otter Tail from that substation.

Q. Well, we will put it this way. It includes one substation in its entirety and probably an allocation of another substation?

A. I think that would be a fair statement.

Q. And it also includes a 24,000-volt subtransmission line, item 2?

A. That's what it says, right.

Q. Did you examine the other special municipal electric service agreements with the other towns with whom Otter Tail has this type of contract?

A. In a general way. I didn't make a comparison of all specific facilities.

Q. This is the highest facilities charge in any of the contracts, isn't it, Mr. Trommershausen?

A. I believe that's true.

Q. Was that why it was selected, do you know?

A. No. The reason, as I stated earlier, it was selected because this was the last contract that was available to us between the Otter Tail Company and the [T. VI, 40] municipals, and in my opinion it was indicative of present thinking of the company in the matter.

Q. Well, in the other contracts, Special Municipal Service Contracts, there are quite a number of municipalities where there is no facilities charge at all, isn't that true?

A. I would have to check the contracts to verify that.

Q. That might take more time than we should at this point in your examination. Did you examine them with that in mind?

A. No, sir.

Q. If I should state that there were several with no facilities charge and some with a facilities charge of one or two mills, would that correspond with what knowledge you have from inspecting the contract?

A. I would take that subject to check.

Q. Yes.

A. If you desire.

Q. And would you accept this, that the municipality has the option of whether it puts in and owns the facilities that

are necessary or whether Otter Tail constructs them and sometimes it's one way and sometimes it's another which results in this situation of some having a facilities charge and some not?

A. This is an option that the company grants the municipality?

[T. VI, 41] Q. Yes.

A. Well, I am not familiar with that detail without rechecking the contracts.

Q. Yes.

A. It would appear to be a reasonable one.

Q. Perhaps we could look at just one illustration. We will get Detroit Lakes, Minnesota, special municipal electric service agreement. That's Exhibit 14, I believe.

A. I have it, sir.

Q. And is what we are concerned with in connection with this question Schedule 3.1b, connection facilities? If not, you can perhaps select the appropriate part?

A. Yes. That's the appropriate section.

Q. And there seems to be two paragraphs there with reference to it. Perhaps you would like to look at them?

A. Yes, I would for a minute.

Q. All right.

A. I have read them.

Q. Now, referring to the first pertinent paragraph No. 1 of this schedule which has the heading, "Detroit Lakes Delivery," the contract provides for Detroit Lakes furnishing the connection facilities in connection with that point of delivery, does it not?

A. It does, yes.

Q. So there is no connection facility charge in [T. VI, 42] connection with that particular point of interconnection?

A. That's correct.

Q. And paragraph two which refers to North Detroit Lakes delivery which is another point of connection to Otter Tail's system, apparently originally Otter Tail furnished the connection facilities there and Detroit Lakes paid a one mill connection facilities charge. Now, it has a notation, "Deleted"?

A. I see that.

[T. VI, 43] Q. Which apparently indicates that that no longer is a charge to Detroit Lakes?

A. I don't know the reason, of course, why it was deleted unless the city terminated this service connection.

Q. Well, I guess we just used Exhibit 14, Detroit Lakes, as illustrative of the general situation we were describing, that in some cases a municipality furnishes the interconnection facilities and there is no interconnection facility charge and in some cases the reverse is true, depending generally on who furnishes the investment in those facilities?

A. I presume that is the basis for making or not making a charge, yes, sir.

Q. And is this fairly illustrative of that situation, or should we look for more?

A. I would have to look at all 17 contracts to tell you whether it is general or not.

Q. I didn't mean the same precise situation was true in other cases, but is it illustrative of the general situation of when a connection facility charge is made and when it is not?

A. Well, certainly, if the company doesn't provide facilities there would be no basis for them making a charge.

Q. Well, I guess it's fairly illustrative, then, isn't it, the Detroit Lakes example?

Mr. Anderson: I think I will [T. VI, 44] object to this, Your Honor.

The Court: You don't know or you do know.

The Witness: I don't know if it is illustrative of all 17, that is my problem.

Mr. Anderson: All 17 are in evidence and speak for themselves. If they are illustrative or not, that would be clear from a reading of them.

Mr. Field: I don't propose to take the time of the Court to look at all 17, of course. I was trying to shorten this thing up.

By Mr. Field:

Q. Now, speaking of the special municipal electric agreements generally, and referring again to the map, Exhibit 439, the special municipal electric service agreements are in relation to each of the towns underlined in orange on this exhibit?

A. That is my understanding.

Q. Now, each of the municipal systems which are thus underlined in orange on Exhibit 439, and in connection with each of which there is a special municipal service agreement between the municipality and Otter Tail, they are municipal electric systems that have been established for many years, that is true, is it not?

Mr. Anderson: Is that a [T. VI, 45] question?

The Witness: Mr. Field, I haven't checked on the incorporation date of each of these systems. I know they are in existence. I don't know how I would categorize them as to how long they have been in existence, whether they are new ones or old established ones. I didn't make that check.

By Mr. Field:

Q. From the material you have examined, which includes the contracts, you learned of at least some standing as far as length of municipal systems being in existence, isn't that true?

A. Yes. The one we had, for example, the last one we worked on was 1962. At least, it was in existence at the time they entered into that contract.

Q. Can we agree on this, that these towns that have these special municipal electric service agreements are not towns that have recently left Otter Tail's retail service to establish their own system illustrated by the towns you picked out or testified about, Hankinson and Elbow Lake?

A. They are not in that category.

Q. You were asked to trace the delivery of power to Hankinson and Elbow Lake on the existing facilities, which you did in your direct testimony, if the power was coming from the Bureau of Reclamation?

[T. VI, 46] A. Yes, sir.

Q. Now, that is two out of quite a number of towns. Were you asked, also, to trace a similar path for other municipalities such as Aurora and Colman which are in the category of towns that have recently left Otter Tail?

A. No, I was not asked to do that.

Q. Can you do it?

A. No, because we don't have the details of the distribution system of the East River people that used to serve those. I do have knowledge from reading of the record in this case that both of those two systems are served from the distribution system of an East River cooperative member.

Q. Perhaps we can start with that point. You are familiar with that?

A. Yes, sir.

Q. Take the City of Colman, South Dakota. What you are telling us is that the new Colman municipal system has as its source of power the Bureau of Reclamation power which is transmitted over East River electric cooperative's system and

in turn on one of its member cooperatives which actually is the Sioux Valley Empire Electrical Association?

A. Yes, sir.

Q. That is what you are telling us?

A. That is what I am telling you, yes.

Q. So Colman had a source of power and a method of [T. VI, 47] delivery of Bureau power to it without any reference to any Otter Tail lines?

A. That is correct. It was possible to get Bureau power without the use of any intervening subtransmission system of Otter Tail.

Q. And that is what is being done?

A. I understand that is true.

Q. The same thing is true as far as Aurora is concerned, is it?

A. Yes, sir.

Q. And I presume that situation in Colman and Aurora could be multiplied several times over by studying the locations, geographical and otherwise, of the towns on the Otter Tail system?

A. I presume a study could be made. I wasn't called upon to make such a study for this case.

Q. That illustrates, doesn't it, I think something you testified in your direct examination, that the Bureau of Reclamation has a transmission grid that does in some cases deliver directly to either G and T, as we call them, electric cooperatives, and in some cases distribution REA cooperatives without any intervening lines?

A. Yes, sir.

Q. It's illustrated by this Colman and Aurora situation by the connections of the Bureau of Reclamation [T. VI, 48] with East River Electric Cooperative, for example?

A. Yes, sir.

Q. And that situation can be multiplied several times in this area by a study of the precise situation?

A. I think it could, yes.

Q. The same situation perhaps would be true for delivery from the Bureau's transmission grid directly to distribution cooperatives, there are several examples of that, are there not?

A. Yes, sir, both members and non-members of East River. Was your question directed to East River or the Bureau in general?

Q. Generally?

A. Yes.

Q. Distribution cooperatives, whether they are East River members or not?

A. Yes, sir.

Q. So there are many examples of sources of power to municipalities in the area serviced by the Otter Tail Power Company where the Bureau power can reach a potential municipality wishing to go into the municipal business without the use of Otter Tail's lines?

A. I would have a problem with your word "many," because I haven't made a study to determine which ones are interested and which should be considered.

[T. VI, 49] Q. But you do recognize that that situation does exist?

A. Yes, sir.

Q. Now, if you will keep Exhibit 439 in front of you and then also get in front of you Exhibit 206, which you referred to in your direct testimony. Do you have those?

A. Yes, sir.

Q. Exhibit 206 has been explained, at least sometime in the record, of what has been called a blow up of a Bureau of

Reclamation map which has another exhibit number, 205.

A. Yes, sir, I have that map, also.

Q. The reason for referring to 205, also, is that it has a legend on it, doesn't it, that gives us the key to the lines and voltages, and so forth?

A. Yes, sir.

[T. VI, 50] Q. And 206 in connection with the blowing up process didn't transpose that?

A. That's correct.

Q. Now, then, referring again to Exhibit 205 and the explanation it's called here, I refer to it as a legend in the lower left side, among other things, to the heading of, "Transmission Lines," it has various voltages, the lowest of which shown there is 69 kilovolts which apparently is the lowest voltage shown unless otherwise noted?

A. Yes, sir.

Q. That same thing is true in the blow-up, of course?

A. Yes. That would apply.

Q. I guess there are quite a few otherwise noted voltages, aren't there?

A. Yes.

Q. There is a 41.6 voltage line?

A. 57 kv voltage lines.

Q. Yes.

A. And 161 kv voltage lines.

Q. Yes. And I guess there are a few 34.5 voltage lines that catch my eye here?

A. Yes. I see some in South Dakota.

Q. Yes. Generally, with a few exceptions which are noted on the map, the lower level of voltage of lines shown on Exhibit 206 and 205 is 41.6, is that generally so?

[T. VI, 51] A. Generally, yes. Yes.

Q. Now, if I understood your direct testimony correctly and after some discussion about it as to its general purpose, Exhibit 439, which I guess was received in evidence as an aid to 206, you said was prepared from two sources; one was 206, was it not?

A. Yes, sir.

Q. And the other was this?

A. Yes, sir.

Q. Black and white map?

A. Yes. We had the whole series for nine years of those.

Q. Well, the Exhibit 38, which I guess we didn't offer but perhaps we should, another source map?

A. It's the same type of map going back to 1960.

Q. Anyhow, this is the same type?

A. Same type of map.

Q. I see.

Mr. Field: I think perhaps we should offer Defendant's Exhibit 38 as a part of the cross-examination of the witness.

(Defendant's Exhibit 38 offered in evidence.)

Mr. Anderson: Would it be perhaps even more helpful to have this colored one which does draw [T. VI, 52] a sharp distinction between roads, rivers, lakes and other things and the transmission system by color?

Mr. Field: Mark them both. I have got a use for this one. If you want the other one I will mark that, too.

Mr. Anderson: I have no objection to either one of them.

Mr. Field: You want this one marked?

Mr. Anderson: Yes, I would.

(Defendant's Exhibit 39 marked for identification.)

Mr. Field: I will offer them both.

(Defendant's Exhibit 39 offered in evidence.)

Mr. Anderson: No objection.

The Court: Exhibits 38 and 39 may be received.

(Defendant's Exhibits 38 and 39 received in evidence.)

The Court: If you will excuse me a minute, Mr. Field.

Mr. Field: Surely.

(Short recess taken.)

[T. VI, 53] By Mr. Field:

Q. We were talking about or I was about to inquire about Exhibit 439. The voltages of the lines shown on Exhibit 439, according to the legend, go down only to the lower level of 41.6 kv transmission line, do you see that?

A. Yes, sir.

Q. In fact, isn't it true that the transmission lines shown on Exhibit 439 go down from that level of voltage to lower voltages, including voltages from 2.4 to 34.4 kv transmission lines?

A. That was not our intention when we drew the map. We assumed we were putting on the Otter Tail 41.6 kv subtransmission system.

Q. The reason I offered Exhibit 38, among other things, was to refer to it in connection with this examination, and this is one of the source maps?

A. Yes, sir.

Q. That source map shows that the Otter Tail lines on the source map do go down to 2.4 voltage, is that not correct?

A. That is what the legend says and I believe the draftsman would have had difficulty here delineating in some cases on the width of lines.

Q. I am not at the moment criticizing the draftsman. What I am trying to find out is in Exhibit 439, there are [T. VI, 54] Otter Tail transmission lines going down as low as 2.5 voltage shown on this map?

A. I see that that is possibly right.

Q. Is it true?

A. I would have to check.

Q. I think it's important.

A. Yes, sir.

Mr. Anderson: The source of all this difficulty, I submit, is the fact that it wasn't until after these maps were prepared that we were able to get our hands on a colored copy of the Otter Tail's transmission map. Now, Mr. Beck's people had to work with this. You can see the difference between the two, Your Honor, and to the extent that there are errors on these maps that he prepared, it is because it is so difficult to make a delineation in this black and white map. The whole thing would have been much easier had we had this, but it was difficult to do so in time. That is my explanation as to why these little errors have cropped up.

Mr. Field: I am not talking about errors, Mr. Anderson. I am glad to have your comments, but I am cross examining the witness, if you don't mind, and the point I am making is not errors, but the lines shown on 439 do include the lower voltages.

[T. VI, 55] By Mr. Field:

Q. Is that correct?

A. I would answer that that is correct.

Q. It's the legend that needs some correction, is it not, on 439?

A. Yes, sir.

Q. And, of course, that's true of the other map which has the same background, Exhibit 440?

A. Yes, it is the same, the same base map was used and the transmission was put on as an overlay.

Q. So, then, we can conclude that your Exhibit 439 has many more Otter Tail lines on it than the Bureau of Reclamation maps, Exhibits 206 and 205? That is true, isn't it?

A. Yes, sir.

Q. Now, Exhibit 439 has the title of "Transmission Map of Otter Tail Power Company Service Area," and I am not saying this to correct any details or anything, but it actually is a transmission map of Otter Tail Power Company's lines in this area?

A. Yes, sir.

Q. It doesn't include electric lines or transmission lines of other suppliers in the area?

A. No. I think what we were trying to do with this title is to give the Court an idea of the extent of the [T. VI, 56] service area of Otter Tail on a total area basis, because there were no exhibits that showed the extent of the Otter Tail system, and that was the purpose of putting that word in the title.

Q. My purpose in making these inquiries is to point out that if this map had superimposed on it the transmission or electric lines of the other suppliers going down to the same level of voltage as Otter Tail lines are on here, there would be many, many more lines on here?

A. Yes, I would agree, but the reason we made this map was that the other maps for reference had so many lines that we thought it would be difficult for the Court to follow them.

Q. As a matter of fact, if all of the lines down to the voltage of 2.5 were put on here, you wouldn't be able to see the white?

A. That is correct.

Q. All you would see would be those lines?

A. That is correct.

Q. Because voltages down to that level would get the REA Cooperative distribution lines, among others?

A. Yes.

Q. Then we are pretty clear that Exhibit 439 is not intended to show the Court the extent to which various electric lines exist in this area?

A. No, sir.

[T. VI, 57] Q. Nor is it intended to give the Court any information on what alternate lines might be available to serve any particular point in the area?

A. No, sir.

Q. Now, in your testimony, you were asked about the path of electricity from the Bureau over existing facilities, and there were two towns mentioned, Hankinson and Elbow Lake, and in connection with our discussion here on cross examination, I guess we are agreed that in both of those towns there were other sources of power and other methods of getting power to each of those towns besides the Otter Tail Power Company facilities?

A. Yes, sir.

Q. I mentioned in connection with your cross examination Colman and Aurora, and the same situation is true there, there were other sources of power and other means of getting electricity to the towns without the use of Otter Tail's lines?

A. Yes, sir.

Q. In fact, they are using other lines?

A. That is right, yes.

Q. Those are four towns out of a total of some 464 towns on the Otter Tail system receiving service at retail. Have you made a study of any of the others?

A. No, sir.

[T. VI, 58] Q. I see. Of those four, namely, Hankinson, Elbow Lake, Colman and Aurora, three of those towns, namely, Elbow Lake, Colman and Aurora have actually put in their municipal systems and have discontinued retail service from Otter Tail and are operating their own systems?

A. That is my understanding, yes.

Q. And the fourth one, namely, Hankinson, North Dakota, has meanwhile granted Otter Tail a new franchise and Otter Tail continues to serve there?

A. That is what the record shows.

Mr. Field: Now, I would like to get into another general subject matter. Shall I start before recess, Your Honor? I can.

The Court: Well, maybe we should recess.

Would you estimate how much longer you will be with this witness?

Mr. Field: I would estimate not over an hour. That would be my estimate. Don't hold me to it, but that's my estimate.

The Court: We will recess until 2:00 o'clock.

(Whereupon an adjournment was taken until 2:00 o'clock P.M., June 8, 1971.)

[T. VI, 59] (June 8, 1971, 2:00 o'clock P.M.)

(Appearances as heretofore noted.)

Whereupon,

WILLIAM E. TROMMERSHAUSEN

resumed the stand and testified further as follows:

The Court: Mr. Field.

Mr. Field: If it please Your Honor.

CROSS-EXAMINATION

(Cont'd)

By Mr. Field:

Q. Mr. Trommershausen, as is usual on a recess, things get called to my attention, and one item that I would like to mention before I start in another area, you gave in your direct examination, in response to questions of Mr. Anderson, a hypothetical case of a 230,000-volt Bureau of Reclamation line being reduced to distribution voltage for a town of 500?

A. That is right, I recall that.

Q. That is a pretty extreme example, isn't it?

A. I agree that it is.

Q. In fact, it borders on the ridiculous, doesn't it, from an engineering standpoint?

A. If you want to characterize it as riduculous. As I indicated at the end of my testimony, no one had ever done it.

[T. VI, 60] Q. Well, would you dispute my characterization as bordering on the ridiculous?

A. Yes. All right.

Q. Would you dispute that?

A. No, I wouldn't dispute that.

Q. On the other hand, there are instances, aren't there, in this area and as shown by these maps of reduction of distribution voltage from 115,000 voltage?

A. Yes, sir.

Q. And also of reduction from 69,000-volt lines from the Bureau to distribution levels?

A. I presume there are. I would have to check the details if you want specifics.

Q. I didn't ask you specifically. I say, there are illustrations of that, aren't there?

A. Yes, I am sure there are. Right.

Q. You were asked about the development of the Missouri River main stem dams in your direct testimony?

A. Yes, sir.

Q. And started at the source, I guess, and came downstream of the various dams.

I would like to ask you a question or two about that development, and in connection with it, call your attention to Exhibit 208, which is page 10 of the PLS. listing of power facilities, also identified as Muller [T. VI, 61] Exhibit 4.

Have you seen this document?

A. I was told we had the document. I have not examined it.

Q. Are you familiar with it?

A. No, sir.

Q. I see. Well, perhaps you would just take a minute to look at this page that I called attention to and then I will ask you a question about it.

A. All right, sir.

Q. I guess the dams that you mentioned, or at least some of them are listed on this page?

A. Yes, sir. They are Corps of Engineers' dams, and I listed two others that were Bureau of Reclamation dams.

Q. Let's talk about the Corps of Engineers' dams. They are all on this page, are they?

A. Yes, sir.

Q. Now, my question is this. As shown by the data on this page, and I presume also in your own acquaintance with the facts from personal experience, these various units of hydro capacity which were added to the main stream dams of the Missouri River run over a period of time starting in 1943 and continuing on down through the years to, I believe, 1966?

A. I think that's correct. That's correct.

[T. VI, 62] Q. So that the development has been a step-by-step process, adding more and more as the units were planned and developed and added to the system?

A. Yes, and as the Corps could get Congressional appropriations to carry forward the work.

Q. Yes. And they would come step-by-step, too, in general?

A. Yes, sir.

Q I presume that in general that historically of the Corps of Engineers' development of resources, they get appropriations for one step and they plan further steps and get additional appropriations, and so on?

A. Yes.

Q. And I suppose you know that the Corps of Engineers is currently studying, and there are further additions to the generating capacity of the hydro dams on the main stem of the Missouri River?

A. Yes. I heard a Corps supervisor make a progress report that they are contemplating, I say the study is under way to add peaking capacity at as many of the main stem dams as it is physically possible and then they would study the economic justification for doing that.

Q. Yes. And I presume Congressional appropriations for both the study and project if it's finally approved also have to be sought?

[T. VI, 63] A. Yes, sir.

Q. In the same fashion we've been discussing?

A. In the same fashion as was handled for the original project.

Q. Yes. And speaking of sources of power for the Missouri Basin area, that's one of the sources that's under consideration at the present time. And then there are other plans going on of a wider scope that you mentioned briefly, I guess in answer to some other questions?

A. Yes. As I indicated there are reconnaissance type studies going on under the North Central study group.

Q. I wonder if we could refer to Exhibit 23 for a moment.

Mr. Anderson: GX-23 or Defendant's 23?

Mr. Field: GX-23. Or DX, I'm sorry, my mistake, DX-23. Your Honor, this is the copy of it. There just will be a few questions about it.

By Mr. Field:

Q. Have you seen this exhibit, Defendant's Exhibit 23, before?

A. Yes, I have, sir.

Q. Did, by any chance, your company, R. W. Beck and Associates, have a hand in drafting this report?

A. No. But referring to the word "drafting," two [T. VI, 64] of our staff engineers were loaned to Robert Marritz to perform two phases of this study. One phase was to cost out, if I may use that term, the transmission facilities and substations that were proposed for the several network schemes that were considered.

The second engineer was asked to make the preliminary, economic analysis. We didn't have any part in developing the concepts of the several plans that are herein studied.

Q. I see. You are close enough to it so you know what it is and to some extent what it contains?

A. Yes, sir.

Q. As the title indicates, the study is centered around what's called a hydro-thermal integration or implementation program, is it not?

A. Yes, it is.

Q. And I guess you and I discussed that concept briefly the other day, I think we did anyway. Does the concept—I am not sure we did. Maybe I better do just a little of it.

Does the concept involve the thermal plant, large thermal plant, as things go nowadays, being what's called the base load plant?

A. Yes, sir.

Q. And the hydro power available used for peaking?

[T. VI, 65] A. That's right.

Q. And they were implemented into a joint planning program?

A. Yes. So that the product of the hydro peaking plant and the fuel fired thermal plant, the end product would be a type

of firm power that's available with all the energy that's required to meet the normal load factor requirements of the purchasers of that power.

Q. Let me ask you this. The implementation, if that's the right word, of the thermal power and the hydro power in this planning, putting them together, does that increase the resources of the two sources of power over and above what it would be if they were operated independently, or isn't that a sensible question?

A. I am trying to—I would have to qualify the answer to that question because when you say increase the usefulness of it, or increase the total amount, which are you—

Q. Well, I guess you can take it either way. The total amount would increase the usefulness, I presume?

A. Well, let me put it this way. That if you had a new peaking unit such as may be under study by the Corps of Engineers in the Garrison reservoir, now, that peaking unit under the present plan, operating by itself, would not produce a commodity that would be useful because all the [T. VI, 66] energy, all the water in Garrison reservoir has already been committed to provide the firm energy that must go with the hydro power that the Bureau has sold all of its preference customers.

So in order to be able to use this new peaking hydro unit, someone must first have permitted the Bureau to store water in the reservoir, and that's done by having the Bureau a few hours a day back off on hydro generation and let the load that was carried by the hydro be carried by the thermal generation so that there is an extra block of water in each of these reservoirs that can be released when they start up the peaking unit to do its peaking job which may be two, three or four hours a day. That's all that the hydro unit will be operating. It will

be operating just to carry the peak load, and then for the balance of the hours a day the steam plant has to pick up the load. So you do have to have the flexibility of being able to store water in this river system in the reservoir before it can be—to be sure that you are not trespassing on the water that must be used, otherwise used, otherwise used to provide the hydro power energy that the Bureau already has under contract.

Q. All right. Well, that's fine, and that's responsive in some respects, but let's take a hypothetical case and assume hydro power available, I suppose my assumptions may be engineering-wise a little absurd, but you [T. VI, 67] can correct them if they are. Let's say that hydro capacity available of a thousand megawatts, and supposing there is thermal plants in the same area that are going to be implemented with the hydro, say, oh, 2,000 megawatts. By implementing the two together and operating them so that the hydro power can be used for peaking purposes, does that increase the total resources of the region?

A. It doesn't increase the total capacity because you only have the 1,000 of hydro plus the 2,000 of thermal that you can add together. If does, it does, Mr. Field, it does take the, take the combined output of the two to develop a saleable, if I may put it that way, saleable product for the Bureau of Reclamation to the preference customers because the preference customers are not situated generally—

Q. Let's take the hypothetical for the moment. Perhaps I can ask it this way, and I am obviously not well schooled in these things to ask these questions as I should be, but supposing the hydro power of a thousand and assume installed capacity has a river flow which will sustain a firm power supply of only half of the installed capacity, 500.

A. Yes, sir.

Q. Five hundred megawatts.

A. That's a good example. So the balance of the capacity needs some energy help.

[T. VI, 68] Q. Yes.

A. And that energy help comes from the thermal system. That is the way a hydrothermal operation is designed to be used on the river system where you have storage. I have to put that in, the storage, because if you have to take the water down the river as it's running, you have to run a hydrobase load and do some peaking with your thermal.

Q. I guess my question will probably be better phrased this way, then, with the assumptions I have last made, the use of the hydro and the thermal together in operation will increase the firm power resources?

A. Yes, that is a correct statement. I would agree with that, yes.

Q. That is generally the basis of these modern studies, including the one we have before us?

A. Yes, sir. Yes, sir, very much so.

Q. What is the overall scope of the studies involved in this Missouri Basin group? Perhaps that question is a little broad, I was looking at page 18, if that is of any assistance to you. It is a heading of "Study Scope."

A. Yes, I see that. Do you want me to read part of it?

Q. If you care to look at it in case you aren't familiar with it recently, and then I will ask you a question about it.

A. All right, sir.

[T. VI, 69] Q. Getting down towards the middle of the paragraph, I'm going to quote part of it, "This study was based on the integration of base load blocks of 3200 megawatts with 1200 megawatt blocks of peaking for a 4400 megawatt integrated stage of development."

Is that an example of the integration of hydro and thermal we have just been talking about?

A. Yes, sir.

Q. And the scope of that unit is a total of 4400 megawatts, which I guess, in turn, is 4,400,000 kilowatts?

A. That is correct.

Q. And then there are other stages in the scope of the same magnitude, 4400 megawatt stages?

A. Yes.

Q. How many stages are there? What does it add up to altogether in the scope of the study?

A. 8,800 megawatts.

Q. I believe you already told us briefly, at least, but in this context I will ask you this question, the scope of this study in general is being included in the North Central supply study on a broader scope than this?

A. Yes. I am not sure they are considering the same transmission configuration. I am not sure that they are considering the two types of peaking generation. This study included both hydro peaking and gas turbine peaking, and I am [T. VI, 70] not familiar as to whether the North Central study includes the latter, the gas turbine peaking.

Q. That is a broader scope, anyway, 8,800 megawatts wouldn't begin to cover the North Central supply study?

A. No, sir.

Q. I guess, perhaps, both studies, but particularly the North Central supply study gives major consideration to mine mouth thermal plants?

A. Yes.

Q. And you are an expert in that field, aren't you?

A. Well, sir, let me say the reason that mine mouth consideration was given here was that originally, there was an-

other study made by the Department of Interior based solely on transmission, the so-called east to west transmission, and with the experience that has been developed in the Missouri Basin, there now being three mine mouth thermal generating plants, it was considered that the other resources in Montana-Wyoming should also be considered, and then determine whether or not there was some benefit of building an east-west transmission line to have the benefit go to the Pacific Northwest and the Missouri Basin, as well, and pick up time zone diversity that does exist between the two regions which would make more efficient use of the thermal power in the base load plants. This is perhaps one of the underlying reasons why the Missouri Basin system group undertook this [T. VI, 71] study, to demonstrate that we should not lose sight of this opportunity to make better use of the natural resources by using transmission to pick up a valuable time zone diversity.

Q. Yes. But you have personally had considerable experience with mine mouth plant planning and long transmission of the output, haven't you?

A. Yes, sir. Yes, sir.

Q. Weren't you involved, particularly, in the study of mine mouth plants, and I am not sure whether they were Colorado or where they were, and high voltage lines to serve Los Angeles? Weren't you a leader in that study?

A. I was one of the engineers witnesses before the Federal Power Commission in which we took the plans of others and translated them into terms of the required transmission to go from the four corners area of New Mexico and from certain designated mine mouth sites in Utah, to take that power to San Diego and Los Angeles.

Yes, it's true I was one of the participants in that study, and—

The Court: We are getting away, I guess, aren't we, from Missouri, maybe?

Mr. Field: Perhaps we are, Your Honor, except to show the experience of this gentleman in that field.

By Mr. Field:

[T. VI, 72] Q. That same type of thing is now being considered to augment the resources of the Missouri Basin, is it not?

A. Yes, it is on a planning basis. No decisions have been made by anyone and probably won't be for several more years.

Q. Let me ask you this, and perhaps we can shorten this part of my cross examination up considerably.

As an expert as you appear here and from your experience in the field, you feel satisfied, don't you, Mr. Trommershausen, that with the planning that is going on now and the situation as you understand it, that the Missouri Basin can expect to have an ample supply of power resources in the future?

A. We must have, or we are all going to be in serious trouble.

Q. Your company, R. W. Beck and Associates, has also been consultant or advisor to the Missouri Basin Municipal Power Agency, is that true?

A. Yes, sir.

Q. Have you done some work previously on that?

A. Very little. Mr. Mayben is the client engineer for that client. That work was handled out of our Columbus, Nebraska, office rather than Denver. I am only called in when there are complex transmission problems beyond Mr. Mayben's experience.

[T. VI, 73] Q. Well, the Missouri Basin Municipal Power Agency is a group of municipalities in Iowa and Minnesota

that have membership in it, is that not true? Perhaps it's more widespread than that?

A. Is the question, there are municipal systems, preference customers of the Bureau in Iowa and Minnesota that are members of the Missouri Basin Municipal Agency?

Q. Yes, you can put it that way.

A. Yes. The answer to that question would be yes.

Q. And there may be some municipalities who aren't preference customers that are members, too?

A. That is possible. That is possible.

Q. In fact, Elbow Lake is a member, isn't it?

A. Yes, sir.

Q. In connection with sources of power and delivery of power to municipalities, which was part of the subject of your direct examination and also your cross examination, this Missouri Basin Municipal Power Agency has concerned itself with plans for transmission grids to be constructed jointly by the municipalities and owned by them, that is true, isn't it?

A. Such a possibility was under study.

Q. There is actually one being built in Iowa by this agency, or at least with the assistance and the services of the agency, isn't that true?

[T. VI, 74] A. No, I think that is not correct, Mr. Field.

Q. Well, let's correct it then—

Mr. Anderson: I think the witness has already said that he doesn't have much personal familiarity with this, and I frankly think we are getting a little beyond the scope of what we were doing in our direct examination. If Your Honor is interested in hearing a discussion of that, that is fine, but it seems to me that perhaps we are getting a little far afield here.

Mr. Field: I think I can show its materiality, and it won't take very long, Your Honor.

The Court: All right.

The Witness: Well, Mr. Field, if you are asking, is there definitely a transmission line planned, and you said going to be built, I believe—

By Mr. Field:

Q. Perhaps I didn't phrase it correctly.

A. A decision has not been made because the studies haven't been completed and I would know if there was a definite plan because we would be called upon to do the financial study, and we have no such assignment at this time.

Q. Well, I have got to get this in proper perspective, I guess. I have here in front of me a Missouri Basin systems group Newsletter, Denver, Colorado, and I guess you are familiar with that publication, aren't you?

[T. VI, 75] A. Yes, sir, I see them occasionally.

Q. This is under date of June, 1970, a year ago. I will refer just to part of it for purposes of a question. You can look at the whole thing, if you like. Perhaps you would like to look at it first.

A. Yes.

Mr. Field: I am sorry, Counsel, I guess you haven't seen that, either.

By Mr. Field:

Q. Calling your attention to a part of this statement here in this publication, and I will quote: "1300 municipal systems in Northwestern Iowa, all members of the Missouri Basin Municipal Power Agency, have contracted with the agency to finance engineering and legal studies leading to construction of subtransmission facilities for future deliveries to the 13 from the joint transmission system. The facilities would

be constructed by a non-profit corporation established by the agency."

Now, my purpose in calling this to your attention, is to ask you if that isn't one method that is being suggested and recommended for delivery of bulk power to municipalities, at least in this situation?

A. I don't know concerning your characterization of being recommended, because this very study that is mentioned here is actually a joint study involving an Iowa generating [T. VI, 76] transmission cooperative who now serves as a wheeling agent for the Bureau of Reclamation in western Iowa, and the purpose of this municipal group is to assist financially in adding capacity to the subtransmission system of that G and T so that they can continue to get their full delivery of Bureau power.

[T. VI, 77] Q. They are running short of transmission capacity so this study is being undertaken to increase the resources in that regard?

A. Yes, sir. The subtransmission system of the wheeling agent in Western Iowa needs additional capacity and this group is cooperating and trying to develop plans to accomplish that.

Q. My point is this is one method of increasing the resources and getting and insuring delivery of power to municipals, is it not?

A. Yes. It's an excellent method because in this way you avoid duplication of facilities if there are joint studies made.

Q. Well, now, you have personally recommended that the municipals get together and plan for facilities to deliver bulk power to municipal systems, haven't you, Mr. Trommershausen?

A. Yes, sir. Yes, sir.

Q. And among other times and places where you did that was a paper you delivered before the Midwest Electric Consumers Association?

A. If I could see the paper?

Q. Yes. I will show it to you, sure. I believe in March of 1970?

A. Yes. I presented several papers there. Yes. [T. VI, 78] I recognize this as a paper that I prepared.

Q. Well, I merely refer to, Mr. Trommershausen, perhaps to refresh your memory and document the question I just asked you, that you have recommended that the municipals band together and plan for the delivery of power to themselves through their own facilities?

A. Yes, sir.

Q. And that's one way of delivering bulk power to a municipal or a group of municipals, isn't it?

A. Yes.

Q. And just one more question in connection with this particular phase of it, and I will refer you to page 13 of this paper of yours in paragraph 7, I will ask you a question about it, but I think I should give you the opportunity of reading it first.

A. Yes. I recall that statement.

Q. Yes. What you say there is that, "Cooperatives and municipal systems in the Missouri Basin must find ways and means of financing, owning, constructing and operating the transmission capacity required to meet growing loads. Over the long term the credit resources of both groups will be called upon to the utmost to meet the utility responsibility that rests squarely on the shoulders of both groups."

That is a statement you made and subscribe to and still do? [T. VI, 79] A. Yes, sir.

Q. So you recommend affirmative action on the part of the municipals themselves to furnish this service to themselves, group action?

A. Yes, Mr. Field, because also at this time in that paper I give the admonition that the Bureau of Reclamation has stated that after 1977 they don't have any additional power to put under contract, and 1977 is not too far down the road for anyone in a responsible position for not developing some plans and developing its credit resources and working up joint endeavors with public and private to come up with a plan to enlarge the generating and transmission capacity after 1977, otherwise we are going to have a void, and it is to avoid that possible situation that I expressed this urgency.

Q. Well, this particular recommendation that I read referred to transmission facilities, did it not? I am not saying you didn't recommend generation studies too, but this particular one related to transmission facilities, did it not?

A. Well, I think this is probably the case of trying to summarize because in the first paragraph I say that they must now participate directly in plans of expanding the low cost bulk power supply. So I would prefer not to make a distinction between developing power supply and transmission. I mean the two have to go hand in hand so I would not separate them as it occurred in the writing of a summary of [T. VI, 80] this paper.

Q. I see. Well, what you recommend was that the municipals band together and plan both generation and transmission?

A. Yes, sir. Recognizing that because of their size that their success would probably come by cooperation on joint projects with other public and private groups.

Q. In any event, it's another recognition by you of the problem that everyone realizes that plans must be made and are being made to take care of the power resources of generation and transmission in this area?

A. Yes, sir. I would say I was trying to be one of the group of people that were encouraging the responsible executives in the electrical industry, both public and private, to make plans, realistic plans for doing something after 1977.

Q. Or continuing on, some of these plans run to the year 2000, don't they?

A. Yes, sir. Yes, sir. Yes, sir.

Q. You mentioned this morning the Otter Tail Power Cooperative Power Association and I believe there are other parties to the integrated transmission agreement. Do you recall referring to that?

A. I think it was yesterday.

Q. Sir?

A. We discussed that agreement yesterday, I think.

[T. VI, 81] Q. Oh. All right. At least in your testimony?

A. Yes, sir.

Q. I thought this morning you referred to it as an arrangement that was desirable in the coordinating of facilities, electrical facilities?

A. Yes. Yes.

Q. It's the type of joint planning that has the goal of saving resources and coordinating facilities?

A. Yes, sir.

Q. Yes.

A. And avoiding duplication of facilities.

Q. Yes. So you mention that agreement as having a desirable purpose?

A. Yes, sir.

Q. Yes. Somewhere in your testimony you refer to a ten-year study for East River Electric Cooperative, according to my notes or notes of one of my assistants. Is that also a plan for coordinating facilities or what is the plan?

A. No. I made reference that I had seen a transmission plan made by another consulting engineer for East River.

Q. I see.

A. Leading towards the development of a ten-year transmission plan for that group in South Dakota, but I am [T. VI, 82] not a participant in it and have not been asked to advise, consult or review.

Q. You have seen the plan?

A. I have seen the plan.

Q. I see. Does that plan involve a line extending into Minnesota to serve the Traverse Electric Cooperative?

A. No.

Q. Or don't you know?

A. The plan that I saw showed that the Minnesota members in Traverse are continuing to receive service by the wheeling arrangements over Otter Tail.

Q. I am talking about the plans for the future, not what's going on now.

A. I haven't seen the plan with that problem solved.

Q. I see. You are not in a position to tell us what that plan is at the moment?

A. No, sir.

Mr. Field: May I have just a minute, Your Honor?

The Court: You may.

Mr. Field: I believe I stayed within the hour that I anticipated and that's all the cross-examination.

The Court: I commend you.

Mr. Anderson: Your Honor, I have just [T. VI, 83] a very few questions on redirect.

REDIRECT EXAMINATION

By Mr. Anderson:

Q. Now, in your cross-examination by Mr. Field, reference was made to the possibility that sometimes transmission networks may not have excess capacities in them. Now, I ask you Mr. Trommershausen, whether in your opinion at the time Elbow Lake and Hankinson asked Otter Tail to wheel power to those two towns, whether there was any problem on the Otter Tail transmission network in the area of not having enough excess capacity to accomplish the delivery of the power to the towns?

A. Well, we must consider that the amount of power being required by the citizens of both towns remained the same whether the power was used by them on a retail level or sold on a wholesale level.

On the retail level, of course, the power would be measured by the individual residential meters. On a wholesale level there would be meters put at the city gate and it would measure the power input going into a municipal system, but the amount of power needed for a retail or wholesale operation in the same city would, of course, be the same; and if it were serving it satisfactory on a retail basis there is no difference to deliver the same amount of power on a wholesale basis. It's just a [T. VI, 84] bookkeeping transaction as far as the accounting for power is concerned.

Q. Now, would the same hold true for wheeling of power over those Otter Tail lines to those two towns?

A. If you were replacing a power supply from the Bureau for an Otter Tail supply but it was to serve the same load and was sold and the same facilities would be used for delivery of the power, it is the same situation because you have the same amounts of power.

[T. VI, 85] Q. To clarify another point, there's been a lot of discussion here about radial, or, as they are also called, lateral lines.

Now, in assessing and evaluating the feasibility of building a lateral line to connect a town to a Bureau substation so that the town can obtain power from the Bureau, does it make any difference in that analysis whether the town has some generation of its own as opposed to no generation at all of its own?

A. Yes, I think that's been discussed here, that a radial operation, radial transmission line operation is not as serious a situation during a transmission line outage situation if there is generation in the town to serve as emergency backup. But the limitation is that when the loads exceed the capability of the local generation and the transmission lines fail, obviously, the generating plant can't meet the total load requirements on it and some loads must be curtailed.

Q. Now, assuming you have a municipality which is planning to establish a municipal power system, and assume that that town is not interested in building any generation of its own, wants to buy all of its power from somebody else, in that circumstance, would you as a professional engineer recommend to a town that it construct a radial line to a Bureau substation so as to obtain a means of delivering the [T. VI, 86] power from the Bureau to itself?

A. No, I would not, and primarily in those cases where a city or town is now receiving from Otter Tail on a group circuit, I would just not find it in my conscience to ask that city to give up two-way service and accept one-way service over a radial line.

To support that, I would not recommend that a city try to establish itself on that kind of a power supply.

Q. Are there any factors other than reliability which prompt you to indicate a reluctance to recommend such a procedure for such a town?

A. Yes. As I mentioned before, we engineers are continually being pressured by the environmentalists because we are resulting in a proliferation of transmission lines, and we just aren't going to be able in the future if there are other alternative ways of using existing facilities and beefing them up, to go out to the rural parts of the Missouri Basin and ask these people to give up additional rights for a parallel transmission line.

Q. I would like to show you a document which bears the GX No. 5 and I would like to have you look at Section 4 which appears on page 11 of the document, and I would like to have you read the last paragraph which appears on page 11.

Will you read it, please?

A. The paragraph reads as follows:

[T. VI, 87] "The municipality agrees that during the term of this agreement its system will not be interconnected with or operated in parallel with any system other than that of Otter Tail."

Now, have you also examined the other special municipal electric service agreements which Otter Tail Power Company has with the towns to whom it wheels Bureau power?

A. Yes, sir.

Q. And can you tell us whether language similar to that which appears in Section 4f of GX-5 appears in any of those other contracts, and when I refer to these other contracts, I am referring to a group embraced by the numbers GX-3 through GX-20?

Mr. Field: If the Court please, I don't believe this is redirect. I don't know that I object to it, except to comment that

we are opening up a new subject that I will have to cross-examine on. I don't think this particular clause was gone into on direct or on cross.

Mr. Anderson: Well, you did talk about the town of Tyler. You did attempt to point out there is a possibility that the town of Tyler might be going to someone other than Otter Tail Power Company to obtain a source of power.

In response to that, I am trying to show now on the record that in all but two of these contracts, [T. VI, 88] the only two exceptions being Tyler and Alexandria, there is a specific provision which in effect tells the town that it cannot during the term of that contract interconnect with anybody else to obtain a source of power from anyone else during the life of that contract. To the extent it needs power, it has to depend upon Otter Tail Power Company for that power, it can't go anywhere else.

Mr. Field: Mr. Anderson, the cross-examination with reference to Ty[illegible] pointed out their contract expired in 1972, and that they then had an alternate source which I suggested would be available to them on the expiration of the contract.

The Court: You may answer the question.

The Witness: I find that the towns covered by Exhibits GX-5 through GX-20 which have been executed since 1965 have this provision which I read into the record, which would not permit these municipal systems to connect to any other system than Otter Tail.

By Mr. Anderson:

Q. Will you tell us whether in your judgment there is any engineering justification for the insertion of such a provision in the contract?

A. I can see that there might be in certain areas electrical incompatibility between bringing circuits from two [T. VI,

89] different systems into one municipal electrical system; but I also know that with the modern techniques, those problems are capable of solution by competent electrical engineers. The power pooling agreement that Mr. Field discussed with me involving CPA and UPA and these others is an example of how all of these systems are being tied together, and I am sure that there were some electrical incompatibility problems that were available in the first place, and if they have not been cured up, steps are being taken to cure them up, because the total concept of today's practice is to increase reliability by making as many system interconnections as are reasonably possible and fall within the basis of good economics.

Q. Now, turning to another part of GX-5, which is the contract between Otter Tail and the Village of Lake Park, Minnesota, specifically to Section 3c on page 7 thereof, and specifically, I call your attention to the second paragraph of Section 3c, and Section 3c bears the heading "Firm Electric Service," now would you read aloud for us the second paragraph of Section 3c?

A. Section 3c refers to "firm electric service," and the second paragraph reads as follows:

"During such time or times as the municipality so requests firm electric service from Otter Tail, and subject to the provisions hereof, the municipality agrees to take from and pay to Otter Tail for, all the electric [T. VI, 90] power (kw demand) and the electric energy (kilowatt hours) associated therewith, required or used by the municipality's system in addition to the power and energy from the Bureau."

In your perusal of the other contracts between Otter Tail and its wheeling customers, have you noticed whether such a provision appears in those other contracts?

A. Yes, similar provisions appear in the contracts, Exhibits GX-5 through 20, all having been executed since 1965.

Q. Now, turning very briefly to GX-206, I believe you testified yesterday that the little dots of various colors represent substations?

A. That's correct.

Q. Now, looking, for example, at the area north of Minot up near the Canadian border, you will notice yellow lines and next to the yellow lines little blue dots—I should say orange lines. I take it those orange lines represent the Otter Tail system?

A. Otter Tail subtransmission system, yes.

Q. What do the little blue dots represent?

A. They represent substations that are connected to the subtransmission system of Otter Tail in that area and are thereby solely dependent on service from those orange subtransmission lines.

Q. Now, the fact that those little blue dots are blue [T. VI 91] indicates what?

A. That they are ownership other than Otter Tail, and in this case I would take them to be substations of members of the Central Power Cooperative.

[T. VI, 92] Q. I see. So then the power would flow over the Otter Tail system to the point of interconnection with the coop substation I take it?

A. That's correct.

Q. And from the coop substation the power would then flow over the coop's distribution lines to the various customers of the coop?

A. That's correct.

Q. Thank you. Now, any, I take it a coop which, for one reason or another desire to sell power to a municipality in a

circumstance where the little blue dot which represents the coop substation is located along one of these orange lines, I take it in that type of situation the power that the coop would use to serve the municipality would have to flow into the coop substation over the Otter Tail transmission system?

Mr. Field: We object to this, Your Honor, as too general. You can't generalize by blue dots as representing any particular thing on this map.

The Court: You may answer if you can.

The Witness: Well, it is obvious that in those cases where a blue dot is on an orange line of the Otter Tail Power Company and doesn't have any connection to any other system, that any power flowing to that blue dot must of necessity go over the Otter Tail system.

[T. VI, 93] Q. Now, one last question. This morning you were asked to look at GX-334 which is the letter from Mr. Bartel to Mr. Belinskey which has attached to it some studies of ways by which power could be delivered to the City of Hankinson. I ask you to look at the document that I ask you to just briefly tell us what solution was recommended as being the best way to accomplish the delivery of power to the City of Hankinson?

Mr. Field: I object to that as calling for a conclusion. The document is in evidence.

The Court: Yes. I read it.

Mr. Anderson: You did?

The Court: Yes.

Mr. Anderson: That's all I have, Your Honor.

The Court: Did that occasion some additional questions?

Mr. Field: A few, Your Honor.

The Court: Well, we will have them before recess then.

Mr. Field: Very well.

RECROSS EXAMINATION

By Mr. Field:

Q. Just now on redirect, Mr. Trommershausen, you suggested that if the town was being served at retail then [T. VI, 94] was switched to either wholesale or wheeling, that the same capacity would be available for all of those functions, or substantially that?

A. That's right.

Q. What you meant was that at that instant of transfer or change from retail to wholesale or retail to wheeling, the same capacity would be available? You didn't mean to say that in the future that there would be excess capacity in those lines, did you?

A. As the load grows, provisions have to be made for increasing capacity, certainly.

Q. My question was, you were talking about the very instant, weren't you, of change from retail to another type of service in saying that if they can serve retail they've got capacity to serve at wholesale? You were talking about that very instant, weren't you, sir?

A. No, sir. Because no one can program the capacity of a transmission line so that it becomes overloaded at, assuming that the transfer is made at 12:00 o'clock and became overloaded at 12:05, there is a margin of capacity in all transmission lines, and it is the surplus capacity in those transmission lines which the wheeling agent has contracted to sell by contract and for which he gets compensated the one mill with the Bureau contract and a mill and a half for permanent, and as I indicated yesterday, the [T. VI, 95] procedure for the last 20 years has been to try to do this on a four-year notice basis. So that unless there are exceptional load growth in an area, that jumps beyond the four, five, six, seven percent which has

been historic, that you could count on some surplus capacity. I can't say it will be guaranteed for the full four years, but four years is a period of time historically that has been used to evaluate the capacity of a transmission line, not from one minute to the next minute.

Q. Are you finished?

A. Yes, sir.

Q. Now, coming back to my question, when you said that because there was capacity at the time of retail, there was therefore capacity that switched to wholesale or wheeling, you were talking about the capacity at that particular time, weren't you, sir?

A. I was talking about physical capacity and if there, obviously has to be a contractual arrangement to use capacity.

Q. I am now talking about physical capacity. You are talking as of that time, aren't you, sir?

A. Yes, sir.

Q. Yes. Now, the retail service that was previously furnished in the hypothetical example, that was a firm committed utility responsibility service, wasn't it?

A. Yes. Yes, sir.

Q. Yes. What you are talking about as being available [T. VI, 96] for wheeling is an excess capacity?

A. On a four-year notice basis.

Q. Well, is in excess?

A. Yes.

Q. Yes. Now, what the load flows might be on any particular transmission line after the switch, I guess we went through this once, but it's been opened up again, and whether there would be excess capacity for one year, two years, three years or four years, you don't know, do you?

A. No. That has to be determined, right.

Q. Yes. Now, reference was made to certain provisions in these special municipal electric service agreements. You refer to Exhibit 5 as part of the agreement.

Mr. Anderson: Do you have Exhibit 5?

The Witness: No, sir.

By Mr. Field:

Q. You quoted one paragraph out of section 4f page 11?

A. Yes, sir.

Q. That paragraph has the heading of, "Interconnected operation," does it not?

A. Yes, sir.

Q. And it has to do with the problems of operating interconnected, does it not?

A. Right.

[T. VI, 97] Q. That's a subject matter that needs consideration, or at least it's not inappropriate to give it consideration in a contract of this kind?

A. That's right.

Q. So that the first paragraph, to get what you quoted in context, reads as follows:

"The municipality system will be interconnected with Otter Tail's system under the terms of this Agreement and both parties agree to cooperate in preventing and remedying difficulties that effect the efficient and proper operation of the party's systems by virtue of such interconnection."

That gives cognizance to the remedying of problems that may arise from the interconnection and is an appropriate provision, is it not?

A. Interconnection problems between Otter Tail's system and the municipal system.

Q. Yes. Yes.

A. Yes, sir.

Q. Then comes the paragraph you quoted, namely:

"The municipality agrees that during the term of this agreement its system will not be interconnected with or operated in parallel with any system other than that of Otter Tail."

That's also in the context of giving consideration [T. VI, 98] to the problems that arise from interconnections, isn't that true, Mr. Trommershausen?

A. Yes. But I would think that if a broader interpretation was made there would be a provisal to take care of an opportunity to make an interconnection to strengthen emergency backup service with another system and this agreement does not provide the opportunity to even entertain, as I read it, a connection with a second supplier.

Q. Well, let's start out with this. That clause is in the context of handling problems, operational problems involved in making an interconnection?

A. Yes, sir.

Q. Yes. You say you would have drawn it differently, but that's a problem they are addressing themselves to?

A. That's the problem they are addressing themselves to.

Q. There are problems in connection with what is called operating in parallel between two systems, aren't there?

A. I recognize that, sir.

Q. Yes. And in a pool arrangement such as you mention which is rather complex in distinguishing it from an interconnection with one municipal, a pool arrangement has interconnections with several systems, the parties recognize it, give more sophisticated consideration to the problems of interconnection, don't they, in those particular contracts?

[T. VI, 99] A. Well, I wouldn't use the word sophisticated because the municipal systems are also becoming sophisticated and recognize that they don't want to jeopardize their system by improper parallel operation.

Q. It works both ways?

A Yes, sir.

Q. Yes. A provision of this kind at least eliminates problems that might arise by interconnecting with some other system and operating in parallel, doesn't it?

A. Without notice.

Q. Yes. Now, you also called attention in response to questions on redirect examination to Section 3c of this same Exhibit 5. Have you got that in front of you?

A. Yes, sir.

Q. Now, that has to do with the contingency or possibility of the municipality giving Otter Tail notice of its desire to receive electric service from Otter Tail in addition to the amounts supplied by the Bureau if it needs it?

A. Yes, sir.

Q. Yes. I guess we discussed a somewhat similar clause in maybe the Shelley contract, but in any event, this is true as to this contract and the others as it was there that the Bureau of Reclamation has committed itself to supply the full requirements of its preference customers including this municipality and all the others through 1977?

[T. VI, 100] A. That's correct.

Q. So there would be no need for the municipality to call for any service from Otter Tail under this clause at least prior to that date?

A. That's right, sir.

Q. Yes. In addition to that and on that subject matter—

Mr. Field: Would you give us just a minute to locate a document, Your Honor?

The Court: Maybe this is a good time to recess for about 10 minutes.

(Recess taken.)

[T. VI, 101] By Mr. Field:

Q. I would like to refer to Exhibits 245 and 307, being respectively the contracts between the Bureau of Reclamation and the town of Aurora and the Bureau of Reclamation and the town of Colman, South Dakota.

I suppose you have had access to these papers before?

A. No, sir, but I will read them quickly and cooperate here.

Q. Well, if we could turn, perhaps—Do you have 245 in front of you?

A. Yes.

Q. Turn to what is called Exhibit B towards the end of the document.

A. Yes, sir.

Q. There is a paragraph which has the heading "Contractor's System Requirements," which I will call your attention to.

A. Yes, sir.

Q. Perhaps you would care to read that first.

A. Yes, sir.

Q. First, the word "contractor" in this agreement refers to the town of Aurora, does it not?

A. That is correct.

Q. Now, this paragraph 2 that I just referred you to, without reading it, the substance of it is, is it not, that [T. VI, 102] the town of Aurora is required by this contract to buy its entire requirements from the Bureau of Reclamation during the life of the contract?

A. Yes, sir.

Q. Now, referring to Exhibit 307, which is a similar contract between the Bureau and Colman, I will ask you to confirm the fact that there is a similar provision in that contract?

A. There is.

Q. We don't have as an exhibit the contract between the Bureau of Reclamation and the towns of Lake Park—

Mr. Field: That is the only town you referred to on your redirect, was it, Lake Park, or was there another one?

Mr. Anderson: I referred to all those in the contract.

By Mr. Field:

Q. We don't have the contract between the Bureau and Lake Park.

I will ask you this, if the contracting situation with the Bureau of Reclamation that you are perhaps familiar with would indicate they would have a similar type of contract for supply to Lake Park and other municipalities as they have with Aurora and Colman—

A. I would have to ask a question about Lake Park, and [T. VI, 103] if we use any others, as to whether they have generation, because the Bureau has several contract patterns. This is a contract pattern I recognize for a purchaser who does not have generation and who does buy it all from the Bureau. If there are Bureau customers that now have two sources of supply, there is another standard form of contract with a format set up as to how you divide the sales between the two suppliers, and for a municipality that had generation there would also be a different type format to divide the responsibility between the municipality's own generation and that which it purchased from the Bureau. So I say that I am familiar that there are three or four different formats of Bureau contracts.

Q. Yes. Well, I guess they should be subdivided between municipalities with generation and municipalities without generation. Lake Park, I am told, is one without generation. If you will accept that, subject to check, we would expect that the Bureau-Lake Park contract would have the same provisions as Aurora and Colman?

A. Yes, sir.

Q. So that Lake Park would then be committed to buy all of its power from the Bureau?

A. Not all of its power; up to its allotment, because the Bureau doesn't have a responsibility beyond the allotment which must be named some place in the agreement.

[T. VI, 104] Q. Let's see now. I didn't read this provision about the system requirements between the two subdivisions A and B. Doesn't it cover the entire requirements of the contract?

A. Mr. Field, I think we do have to go to the other part of the contract to see if there is not a first limitation which established the Bureau's ultimate responsibility.

Q. Before we do that, if we have a problem here, I think perhaps we had better get this language before us a little more specifically, if you don't mind.

A. I don't, sir.

Q. For clarity's sake in our discussion here, I will quote this short paragraph which has the heading "Contractor's System Requirements," and has a paragraph No. 2, and this is from Exhibit B attached or a part of Exhibit 245: "The system definitions and billing determinations set forth in this operating agreement are based upon the understanding of the parties that the contractor's electric service arrangements are such that its system requirements are being supplied from the following sources only, (a), firm power service from the United States; (b), additional firm power service from the United States."

Now, the allotment that is talked about usually is the part referred to in (a), isn't it, firm power service from the United States?

[T. VI, 105] A. Yes.

Q. What is talked about under (b) is the additional firm power service that makes up the balance necessary for their requirements?

A. Yes, but as I understand it, come 1977—

[T. VI, 106] Q. Well, let's talk about the present, up until then?

A. Up until then, right. And then after 1977 there must be a number here that said this is the upper limit of the government's—

Q. Let's confine ourselves—

Mr. Anderson: Just a minute. Let him finish his answer to the question, Mr. Field. You have asked him a question and he would like to answer it, I think. You interrupted him and don't let him finish.

Mr. Field: Very well. Go ahead and finish.

The Witness: I would like to read the rest of the contract to see if there is in fact a provision in this contract, as I expect there is, that the Bureau has set a ceiling on its obligation.

Mr. Field: Are you finished now?

The Witness: Yes.

Mr. Field: Mr. Anderson?

By Mr. Field:

Q. Now, let's confine our discussion to the amount in 1977. Are we agreed that this provision requires the municipality to buy their entire requirements from the Bureau of Reclamation?

A. Yes.

Q. Then there would be no opportunity for the [T. VI, 107] municipality to request Otter Tail to furnish any power under this section of the Lake Park contract up until 1977, that's true, isn't it?

A. That's my understanding of the provision.

Q. One more question and I am through, at least one subject matter if the question is answered so that we get the information I anticipate getting.

Q. Referring to Exhibit 206, and you were referring to blue dots representing substations of Central Power Electric Cooperative in the Minot area?

A. Yes, sir.

Q. You made the statement that blue dots that were traversed by or adjoining the orange dots represented in your connections with Otter Tail Power Company?

A. Yes, sir.

Q. In addition to those blue dots there are blue dots that indicate adjacent—strike that.

There are blue dots that are adjacent to and represent interconnections directly with the Bureau of Reclamation lines, aren't there?

A. In which area?

Q. Well, let's take the Minot area. Aren't there red lines, the Bureau lines?

A. Yes, sir.

Q. And just to the right or east of what is called [T. VI, 108] Minot you see the blue dot that's on the red line?

A. Yes. But there are several blue dots there. That blue dot is also connected on a blue line, and I have to go to some further details to determine whether that is directly connected to the Bureau. I would guess not in that case because the blue dot can get service directly from a central power cooperative of 41 kv transmission line that's owned by it and presumably tied by into another dot called McHenry which I presume is the substation for the William J. Neil generating plant of Central Power Cooperative.

Now, if we go back up to Minot, and let's go about an inch and a half eastward from Minot, you see another blue dot that appears to be on the blue line but it's also, has an orange line there.

Q. You mean red line? You mean red line?

A. There is also an orange line parallel to the Bureau's red line.

Q. You said a blue line, you mean blue dot?

A. A blue dot. Blue dot. Yes, sir.

Q. On the red line?

A. Right, sir. Now, I don't believe that that blue dot is connected to the Bureau system at that point because I don't know of a Bureau substation that's located there. The only way it could be connected to the Bureau line is through a substation.

[T. VI, 109] Q. Well, I guess what you are telling us is that blue dots do occur on other lines than orange lines and we may need to go to some other information to tell just what the situation is, is that the substance of what you are telling us?

A. If you are trying to get down to minute details, there isn't enough on this map. That's correct.

Q. You didn't want to leave the impression that all of Central's substation blue dots were connected with or dependent upon Otter Tail lines, were you?

A. No, sir. I did not intend to convey that impression, sir.

Q. Very well. That clears that up.

Mr. Field: That's all we have, Your Honor.

Mr. Anderson: I have nothing further, Your Honor.

The Court: You may step down. Thank you.

The Witness: Thank you, sir.

(Witness excused.)

Mr. Anderson: Your Honor, that completes the Plaintiff's direct case.

The Court: You rest?

Mr. Anderson: We rest.

Mr. Field: Can we clear the [T. VI, 110] decks a little bit here?

The Court: Yes.

Mr. Field: May it please Your Honor, in opening the Defendant's case, I am now in a position to state and advise the Court and Counsel that our case will be presented by the three witnesses that we have stated that would be in our case from the beginning: Albert V. Hartl, the President of Otter Tail Power Company, Warren Nye, Vice-president of Otter Tail Power Company, and Dr. Walter Morton, an Economist and expert witness in that field.

Now, I am somewhat at a loss and ask the Court's indulgence in advising me if the Court wishes to do so, as to whether anything further in the way of an opening statement at this stage of the case will be of assistance to the Court?

The Court: Yes. If I could get a five minute pithy, punchy explanation of what you expect to show. Why it isn't true what the government says, not the details, but the gist of it.

Mr. Field: Very well. I am digesting it here, I hope, in my mind.

Briefly, Mr. Hartl will—

The Court: First, before you tell me what Mr. Hartl and the others will say, what your whole case is going to show. Can you tell me that? What the drive of your case is you expect to show, what you expect it to be.

[T. VI, 111] Mr. Field: That Otter Tail's integrated system serving its 460-odd towns of retail depends for its viability upon the continuation of retail service to its retail

towns; that an erosion of the retail towns from its system will result in its lack of viability; that it will result in added costs to the remaining consumers, some 100,000-odd consumers; that the threat of erosion is present and will continue in the future and will be augmented materially by the granting of the relief that the Government asks for in this case, namely, that Otter Tail be enjoined from declining to furnish wholesale or wheeling service to a municipality that wants to leave it and to furnish, as a result, Otter Tail's own facilities to aid and assist the municipality to leave it and oust it and set up its own system;

That threat will impair its credit, and that a threat of that type of erosion is present from several sources, not only from the Bureau but from the cooperatives, from the sources that have what will be referred to as underpriced Government power; that the basic reason for Otter Tail's position in this case and in its business, of course, for not wanting to furnish its own facilities to assist a municipality in setting up its own system and leaving Otter Tail is that if it does so, it will contribute to its own damage, its own erosion, its own demise.

[T. VI, 112] The policy of Otter Tail in that regard is based on reasonable and proper business considerations and will be demonstrated factually by the witnesses.

Also, the evidence will show that Otter Tail does not monopolize. The evidence will show that Otter Tail is one of the competitors in a highly competitive field. The evidence will show that Otter Tail is subject to the Courses of competition at all levels of its operation, production, which is generation, transmission and retail.

Otter Tail does not expect to and has no plans of any attempt to eliminate that competition. It's been in existence all of its life, is present now and will continue in the future.

All Otter Tail asks is the ability to remain viable and meet the competition which can be expected from what might be called normal sources. But what Otter Tail does object to and what perhaps is the pith that Your Honor has directed me to address myself to is furnishing Otter Tail's own facilities, its own properties to assist a competitor, if you call him that, a retail town that is now being served, to leave it and set up its own system.

The Testimony will show that municipalities have the right to go into the municipal business and have exercised that right. We have examples [T. VI, 113] already in the evidence of that. The testimony will show, as it already does, that there are other sources of power available to municipalities besides using Otter Tail's system, whether it would be their own generation, cooperatives, the Bureau of Reclamation or whatnot, and that those sources of power and methods of delivery which have been and will be demonstrated by the evidence in the case to some extent, which will be enlarged upon in our case, is something that Otter Tail is willing to meet and should meet as a competitor in the field, but which it does not wish to furnish its own facilities to destroy itself and eventually remove itself from the competitive field if the erosion takes place that would be expected from a course of action which would compel it to furnish its facilities for that purpose; in other words, the threat of municipalities leaving Otter Tail's retail system is based upon the facts of life, the legal ability of the towns to make that decision; the availability of sources of power which permit it to go into that business.

But to compel Otter Tail to contribute to its own demise is what is being objected to, and what we say in the exercise of its right to protect its own survival, is not an antitrust violation, but a justified, reasonable and proper business consideration for that position of the company.

The Court: In Grinnell, Justice [T. VI, 114] Douglas says: "'Monopoly' under Section 2 of the Sherman Act has two elements: Possession of monopoly power in relevant market and willful acquisition or maintenance of that power."

I gather your position is that you deny that Otter Tail is a monopoly power in your market, and even if it is, you are not trying to maintain the power?

Mr. Field: That is true, Your Honor.

I would like to comment, however, on those two factors because we have some problem in semantics here in the electric business.

The service at retail in the electric business, at least, in the smaller towns, which is all Otter Tail has on its system, by virtue of economic consideration, each town is a natural monopoly market, in our judgment, and I think our testimony will show that. There is only room for one supplier, economically room for one supplier. So that the question, if each town is a relevant market, and I would like to discuss that for a moment, if you are going to remain viable and resist the erosion, it's the question of which supplier supplies that market; not having two suppliers or no predatory intent to oust anybody that is supplying that market, it's quite the reverse and new competitors seek to oust Otter Tail. So [T. VI, 115] its efforts to stay in business should not be equated with a description of the type of monopoly that is condemned by the Sherman Act.

There are cases where there is a natural monopoly, and in that case, the principles of the application of the relevant market approach are adjusted to apply to that situation. There are some cases of that kind. In other words, Otter Tail's resistance to furnishing its facilities to put itself out of business in town A, willing to meet the competition of normal

forces, namely, the town's right to go in business and supply its source of power from other places, it will meet and it will use all reasonable means to attempt to stay in business in that town.

So they have this campaign literature and whatnot where the matter is presented to the voters or to the council, and so forth, which we say is immunized from antitrust attack and the lack of desire to help with its own properties the ousting of it from that town, the issue practically is, which supplier is going to supply that town.

So you ask me if Otter Tail wants to retain a monopoly. It wants to stay in business in that town, all right, and the business in that town is a natural monopoly. So we have got a problem with words here and their contexts and their meanings in that context that we must keep in mind in dealing with the subject matter that we [T. VI, 116] have.

Now, on the relevant market, which is an antitrust, of course, item in any Section 2 case, our testimony will present an exhibit on the geographic relevant market study which is another approach to the one that I just described, and frankly, I am a little disturbed and undecided which approach is the proper one, so we will present evidence on both. We will present a geographic market study which will cover a geographic area covered by the Federal Power Commission Electric Supply Area No. 26 and our efforts will show what that is.

[T. VI, 117] It's roughly the outline of the outer peripheral of Otter Tail's system that's been established as a supply area and that exhibit will show the total retail electric sales in that area and will assume the relevant product market as retail sales and develop a percentage of the retail sales in that geographic area that Otter Tail has on its integrated system. It's somewhere in the neighborhood of 29 percent, as I recall it, approximately.

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We also take the position and this is perhaps in more direct response to your question, after disposing of the semantic problem of the use of words here, take the position that Otter Tail is not in a position of dominance or control in the transmission and delivery of power in this area, and we will present evidence as to the extent of Otter Tail's lines as compared to the lines of other suppliers in the area, and we will have some exhibits that will illustrate the proliferation of other lines in the area where all of the lines are taken into consideration which isn't true in the exhibits we have here so far.

The Court: Have you got an exhibit that does get all those lines in there in one sheet?

Mr. Field: In illustrative areas. We have in two illustrative areas, yes.

The Court: Well, I gather your point is you are not a monopolist, that's the main thing?

[T. VI, 118] Mr. Field: We are not a monopolist. We are a public utility that would like to stay in business and protect our system from erosion against the use of our own property and destroying it; and we seek to remain viable to meet the forces of competition in the marketplace.

Now, I haven't gone into what each witness will testify to and perhaps I have addressed myself in a nutshell to Your Honor's inquiry.

The Court: I think so.

Mr. Field: I will call Mr. Albert V. Hartl as our first witness.

[T. VI, 119]

Whereupon,

ALBERT V. HARTL,

A witness called by and on behalf of the Defendant, being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Field:

Q. Will you state your name and address for the record, Mr. Hartl?

A. My name is Albert V. Hartl, H-a-r-t-l of Fergus Falls, Minnesota.

Q. And will you briefly give us your, first, tell us your present position with Otter Tail Power Company?

A. I am the president and the chief executive officer of Otter Tail Power Company.

Q. Now, would you briefly give us your, both your educational background and your business experience, Mr. Hartl?

A. I am a graduate of the elementary and secondary schools of North Dakota, and then I attended the University of North Dakota, graduating in 1932 from the School of Commerce with a Bachelor of Science degree.

I started to work with the State of North Dakota in the tax commissioner's office and immediately became acquainted with the utility industry by virtue of supervision of the income tax division of that department.

In 1936, I was appointed chief accountant for the [T. VI, 120] North Dakota Railroad Commission and now renamed the Public Service Commission, the State Regulatory Agency in that state, and functioned in that capacity until called into the military service in 1941.

I returned and was separated from military service early in 1946 and on April 1, 1946, I became associated with Otter Tail Power Company as an assistant controller.

I have been associated with Otter Tail Power Company ever since that time in increasing degree of responsibility in managerial positions, first of all in the accounting and financing

fields, and subsequently in the field of general management, and now as the chief executive officer.

I, of course, have complete responsibility for the operation and functioning of the company, and as a member of the Board of Directors, I share with the remaining directors the responsibility and the authority for the establishment of policy of Otter Tail Power Company.

Q. I gather then that you have general managerial responsibility for the operation of the company?

A. I do.

Q. And you are generally familiar with the system of Otter Tail Power Company and its history. Could you give us a thumbnail sketch of the Otter Tail system and its history, Mr. Hartl?

A. Otter Tail Power Company is what might be termed a [T. VI, 121] classic example of the evolvement of a proprietorship into a publicly owned, publicly held utility system. It started, it was organized in 1907 by two men and started operation in 1909.

The product apparently had great appeal at the time and the original founders of the company were faced with two great problems. One, the availability of capital to make the necessary expansion to meet demands for the product, and secondly, the ability to attract personnel and train such personnel to operate the new utility company in all the ramifications that were coming into being at that time.

It started by taking over a large number of local one town, most of them, municipal operations though some of them were privately owned enterprises, and amalgamating, coordinating and integrating them into one operating system that brought to a large number of very small communities that otherwise under the technology of that day would have had no way of

achieving the economy of scale of the benefits of central service other than if it would be brought to them by the benefits of a company such as was coming into being.

So that during the 1920's, there were dozens of communities saw fit to join the Otter Tail system. Late in the 30's and early in the 40's, even larger numbers of towns joined the Otter Tail system through the workings of what is spoken of in the industry as the Holding Company Act where [T. VI, 122] territories noncontiguous and non-integrated with the parent company were sold off by the parent company and those in the Otter Tail territory became part of the Otter Tail system till, when I joined the company in 1946, they had reached practically their present geographic limit and were bringing the benefits of scale, coordination and reliability to over 460 communities in the three-state area in which we operate.

[T. VI, 123] Q. You speak of interconnected system. What is that concept as it applies to Otter Tail's properties?

A. That concept as it applies to Otter Tail Power Company evolved from the building of generating stations in load centers and the interconnection of those generating stations at the same time connecting to the system the small communities in between along those lines.

Q. Is the Otter Tail system a completely interconnected system, then, by transmission lines and other electric lines?

A. The Otter Tail Power Company now operates as a completely integrated interconnected system and has so operated since about 1947.

Q. Now, has Otter Tail Power Company also established interconnections with other suppliers in its area, and if so, would you briefly describe that situation?

A. When I first came with Otter Tail Power Company, they were a self-sufficient utility, responsible for their own

production and responsible for transmission to all of their communities. As the technology of the industry progressed, and it rapidly changed in the first years I was with the company, the management of Otter Tail found it appropriate and economic to interconnect their facilities with the facilities of the neighbors of Otter Tail Power Company of all types. Such interconnections have been [T. VI, 124] effected and are now in operation.

In fact, it goes even beyond mere interconnection. There is the integration of these facilities through charter membership in the Upper Mississippi Valley Power Pool.

Q. Could you name for us some of the major suppliers with whom Otter Tail has established interconnections either through the pool or otherwise?

A. The investor-owner neighbors of Otter Tail with whom we are interconnected are Northern States Power Company, Minnesota Power and Light Company at Duluth, Montana-Dakota Utilities at Bismarck and Northwestern Public Service at Huron. We are also interconnected at many points with the United States Bureau of Reclamation. We are interconnected with Minnkota Power Cooperative, United Power Association, also a cooperative, East River Cooperative and Cooperative Power Association. There are others, but these are typical of the type of neighbor and supplier with whom we are interconnected.

Q. Do benefits recur to Otter Tail customers by reason of these interconnections and arrangements, and if so, would you describe generally the nature of them?

A. There are numerous and positive benefits to the customers of Otter Tail Power Company, maybe primarily the benefit of reliability. The Otter Tail Power Company has maintained for years an enviable reliability record to its [T.

VI, 125] retail customers. Interconnections with its neighbors and the operation of a power pool has also made it possible for Otter Tail Power Company to buy economy energy if it was available, to obtain such at a lesser cost than it could generate that energy for itself, and consequently, the lesser costs are then made available to the customers of Otter Tail Power Company in the form of lower rates than would be necessary should Otter Tail be still operating as an independent isolated self-contained utility.

Q. Mr. Hartl, I would like to have you describe for the Court the nature of the towns, the size of the towns and their geographical distribution that are served by Otter Tail's integrated system.

A. The Otter Tail Power Company service area and all of the communities which it serves may be described very simply as a part of an agricultural and rural area. The largest community we serve is Jamestown, North Dakota, a community just over 15,000 people. The next largest community is Fergus Falls, Minnesota, in excess of 13,000, and there is only one other community above 10,000 in population, and that is Bemidji, Minnesota.

The bulk of our communities are communities of a thousand population or less, and by definition of the Department of Agriculture, they are not towns, they are not urban areas, they are rural areas. The bulk of our towns [T. VI, 126] are classified as rural, and as such, are subject to the marketing possibilities that are brought forth by the Rural Electric Administration Act.

Q. Geographically, over what area are these 460-odd smaller towns located?

A. Both the east-west and the north-south area of the Otter Tail Power Company are approximately 375 miles in

length. To put it in another perspective, the geographic area is approximately the same as the entire State of North Dakota, but we serve only 104,000 customers.

Q. Could you delineate just generally the extremities of the area served by Otter Tail's integrated system, how far west, north, south and east?

A. From the Missouri River in the vicinity of Garrison and Washburn, North Dakota, northward to the Canadian line, omitting the city of Minot which is served by Northern States Power Company. Then all of that territory to the east of that line except for the area of Grand Forks and Fargo, North Dakota, which, again, is an island of Northern States; eastward to Bemidji, Minnesota, towards Alexandria, Minnesota, but we do not serve Alexandria. That is a municipal operation; towards Willmar, Minnesota, but we merely interconnect there, we do not serve Willmar; and south to the Lake Benton area in Minnesota, and south; and in South Dakota, you go further south, you go to Trent, South Dakota, which is [T. VI, 127] approximately 25 miles north of Sioux Falls and then we cover the Northeastern corner of South Dakota, the larger towns encompassed being Milbank, Sisseton, Waubay and Britton, South Dakota.

Q. Generally speaking, would it be appropriate to describe the area you have referred to as the eastern half of North Dakota and the northeastern section of South Dakota and the western part of Minnesota?

A. It is sometimes referred to exactly that way.

Q. And you have already told us that you don't serve all of the area in those limits?

A. No, we do not.

Q. In addition to the customers that are inside of these municipalities that you described, does Otter Tail also serve some customers outside of the municipal limits of those towns?

A. Otter Tail Power Company does serve several thousand customers outside of the platted area of municipalities, and that has been a historical policy of the company. It would connect rural customers whenever it was economically feasible to do so, and started making such connections to farms in the decade 1910 to 1920.

Q. Now, referring to the type of service that Otter Tail has been furnishing and is furnishing by its integrated system, can you tell the Court what the facts are with [T. VI, 128] reference to whether Otter Tail Power Company has developed its property and is serving at retail or wholesale, or what the situation is?

A. Historically, Otter Tail Power Company has evolved as a company offering retail service to its customers. As one of my earlier answers indicated, we took over many municipal systems that came to Otter Tail Power Company in its infancy asking to be taken over and be given the benefits of transmission line service. So we did take over such communities, and from that time on, we rendered retail service to that community. That type of transitional period took quite some number of years, and it has evolved to the point that at the present time Otter Tail Power Company has no true wholesale customers on its system.

Q. We will discuss the term "true wholesale customer" in just a minute, but before we get to that, is this matter of serving at retail rather than at wholesale a policy or has it been a policy of the company?

A. It has been a policy of the company. It continues to be a policy of the company and has been documented in formal rate filings that have been made with the Federal Power Commission.

Q. And has it been documented in contractual documents, also?

A. It has been documented in contractual arrangements [T. VI, 129] between the company and certain municipalities in its service area.

Q. What are the facts, Mr. Hartl, as to the dedication of Otter Tail's property as between retail and wholesale service?

A. Otter Tail Power Company has had a long-standing policy of dedicating its property to the rendering of retail service and it has historically offered or provided wholesale service only under special contracts and for the limited terms that are specified in that contract and under the conditions of that contract, and very specifically and carefully has never held itself out generally for the dedication of its property to the rendering of wholesale service.

Mr. Field: There is an exhibit in this case that I would like to locate, No. 83. Perhaps the original is available. Is 83 available here?

Perhaps this might be of interest to Your Honor.

By Mr. Field:

Q. I will show you a document that has been identified and received in evidence as Exhibit 83, and ask you if the third sheet thereof labeled "Original Sheet No. 2" is the documentation of the filing before the Federal Power Commission that you referred to?

[T. VI, 130] A. Yes, it is. I recognize that as the sheet in the formal filing with the Federal Power Commission that enunciates the policy of Otter Tail Power Company relative to the rendering of wholesale service.

[T. VI, 131] Mr. Field: It's the third sheet, Your Honor. The heading of the sheet in question is, "Preliminary Statement and General Explanation of Company's Policies and Practices." If you can refer to that page, Your Honor.

The Court: I've got it.

Mr. Field: That's not the page.

The Witness: The third page.

The Court: Original sheet 3, is that it?

The Witness: Original sheet 2. There it is there.

By Mr. Field:

Q. Now, for convenience, will you quote the portion that refers to the general policy that you described in the FPC electric schedule filing?

A. Reading the last three sentences:

"The company's general policy and practice is to serve customers at retail within the area served by it. The furnishing of electric service at wholesale is incidental and limited to those wholesale purchasers with whom the company has contracted for such service. The company has never held itself out generally to serve wholesale purchasers."

Q. Now, when were these filings made, how far back?

A. This filing that I am reading from is dated [T. VI, 132] November 1, 1947.

Q. Has that the policy been maintained down through the years since 1947?

A. That policy was maintained in all subsequent filing of rates with the Federal Power Commission.

Q. Now, this Exhibit 83 reflects along with this statement a provision for special contracts and wholesale rates that would be applicable where special contracts are entered into. Pursuant to that situation did Otter Tail have some special wholesale contracts at one time?

A. Yes. Otter Tail Power Company had in excess of 20 such special wholesale agreements.

Q. Do you have any of those now? Does the company have any of those now?

A. No. All of those special agreements and the customer related to them have been preempted by and taken over by the

Bureau of Reclamation. Otter Tail Power Company no longer has any such customers.

Q. What's the period of time involved in the Bureau of Reclamation taking over what wholesale customers Otter Tail did have?

A. I believe the period could be described as the time span 1955 to 1965 with the exception of two that did not involve the Bureau of Reclamation.

Q. Perhaps we can talk about those in just a minute.

[T. VI, 133] A. All right.

Q. Referring to the bulk that went to the Bureau of Reclamation, were they associated with the marketing area of the Bureau of Reclamation?

A. All of the customers, as I mentioned as leaving Otter Tail and become customers of the Bureau of Reclamation, were entities that were physically located within what has been described here before as the market area of the Bureau of Reclamation.

Q. Geographically how does the marketing area of the Bureau of Reclamation coincide, if it does, with Otter Tail's integrated system?

A. The designated marketing area of the Bureau of Reclamation covers the entire Otter Tail Power Company's service area with the exception of the City of Bemidji and the territory for a few miles west of that community.

Q. During the period that you have mentioned that these wholesale accounts were taken over by the Bureau of Reclamation, and in view of testimony we have already heard in this case, is that associated with the initiation of service from the main stem dams on the Missouri River?

A. That is correct. That as soon as energy became available from the Bureau of Reclamation, the communities we had

been serving at wholesale saw fit to leave us and become customers of the Bureau of Reclamation.

[T. VI, 134] Q. Is there some economic explanation of that that you can give us?

A. There was a compelling economic consideration, that the Bureau of Reclamation, because of the special circumstances surrounding government financing and the freedom from taxation of a government entity is able to offer a product at a considerably lower price than can an economic unit that must carry all of the costs of doing business.

Consequently, the economic competition, ratewise, of Otter Tail Power Company and the Bureau of Reclamation makes it impossible to meet.

Q. By impossible what do you mean, Mr. Hartl?

A. That the Bureau of Reclamation is and was able all during this period to offer a source of energy to these communities at so much lower a price than could Otter Tail, that they could not see fit even with the other advantages inherent to staying with an investor-owned company and left us to go with the Bureau of Reclamation.

Q. Now, there have been some special municipal service agreements received in evidence which represent arrangements to wheel Bureau power over Otter Tail's lines to certain municipalities. You are familiar with those special contracts, are you?

A. Yes, I am.

Q. They have been received in evidence as exhibits here?

[T. VI, 135] A. Right.

Q. Now, are the towns that are receiving that wheeling service pursuant to those contracts in some respect related to the prior towns that were served at wholesale by Otter Tail?

A. Many of them are. Others have been added.

Q. While we are on that subject matter, are all of the municipalities receiving this wheeling service under the special contracts, are they municipalities which have had municipal systems which have been established for some time?

A. If by some time, the term some time we can assume a period of at least ten years or longer, my answer is in the affirmative, yes.

Q. You spoke a minute ago about two examples of previous wholesale customers that didn't fall in this category of being taken over by the Bureau of Reclamation.

What two were those?

A. One was the municipality of Bagley, Minnesota, which is a community northwest of Bemidji, Minnesota, and is just outside of the marketing area, consequently, it could not exercise any rights as a preference customer to get energy from the Bureau of Reclamation, and they then continued to get service from Otter Tail Power Company until the late 60's when they became customers of the coop in that area leaving Otter Tail Power Company as a supplier.

[T. VI, 136] Q. What is the other one?

A. The other one was an unusual situation involving a wholesale contract Otter Tail Power had with a small investor-owned utility serving the communities of Arthur and Hunter, North Dakota, communities in Cass County northwest of Fargo, and the name of the utility company was The Farmer's Elevator Company.

These two communities were purchased by Cass County Electric Cooperative, and the contract was assumed by the cooperative and expired by term—its term expired in 1970 so that contract went out of existence.

Q. Is that the last what you call true wholesale contract that Otter Tail Power Company had?

A. Yes, it was.

Q. So now there is none of that character?

A. Correct.

Q. Now, referring to your use of the term true wholesale arrangement or contract, what do you have reference to by using that term?

A. My concept of wholesale in the utility business is the sale to another entity involved in the utility business in some fashion that would immediately re-use this energy by sale to ultimate customers as distinguished from an electric supplier of some type that might take this energy in replacement for some that prior to that time he had [T. VI, 137] provided for Otter Tail Power Company or might in turn pass on to a third electric entity or any one of the numerous types of exchanges that are enumerated in the Otter Tail Bureau contract that is an exhibit in this case.

The Court: Maybe this would be a good time?

Mr. Field: Yes, Your Honor.

The Court: We will recess until 10:00 o'clock in the morning.

(Whereupon a recess was taken until 10:00 o'clock A.M. June 9, 1971.)

[T. VII, 1]

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
SIXTH DIVISION
(Title Omitted in Printing)

The above-entitled matter came on for trial before the Honorable Edward J. Devitt, Chief Judge of the above-entitled Court, at Saint Paul, Minnesota, commencing at 10:00 o'clock A.M. June 1, 1971.

The following transcript contains the proceedings of June 9, 1971.

(Appearances as heretofore noted.)

[T. VII, 2]

Chart Prepared By United States

(June 9, 1971)

Mr. Anderson: If I may just intrude for a moment. Here is our little effort to draw a chart. We gave a copy of it to Mr. Field a few moments ago. I don't know if that's what you had in mind.

The Court: Did you have a chance to see this? Do you think it's a fair representation, Mr. Field, of the situation?

Mr. Field: It's just been handed to me.

The Court: After you look at it, if you think—

Mr. Field: I am sure it's an attempt to be fair. We may have some controversy with some of the answers.

The Court: Well, if it doesn't comport with your view of the thing you might file a little amended one.

Thank you very much for doing it.

Mr. Field: I can see three yeses that I don't agree with.

The Court: That's the dominant?

Mr. Field: Yes. And I guess this is too soon to give any comprehensive answer, but I can see in the column labeled, "Potential suppliers prevented [T. VII, 3] from serving the town because of Otter Tail Power Company's refusal to wheel," the first two answers with reference to Hankinson and Elbow Lake we would dispute that answer.

The Court: I guess what I was mainly concerned about who serves now and what happened at elections and so forth. Principally, I guess the information in the first two columns anyway, but I am glad to have the government's view of the answers to the other columns.

Mr. Field: All right. I have no doubt the dates of the election are correctly stated. We can check them out of course, and as far as litigation is concerned, as I stated as a part of our objection, when that evidence was offered, that we considered the offer made by the government fragmentary and if it was received, which it has been, that we would want to supplement it with a full record, and we expect to identify Exhibits to accomplish that purpose during that part of our case.

The Court: I have just written down June 9, ninth day. Maybe it's a little premature, and I don't ask the question to press you, but could you make some estimate that would be helpful to the clerk and all of us in planning our future work, if you could estimate how much time, for instance, your three witnesses would take from your viewpoint and maybe if counsel would indicate the total time he might be cross examining it would be beneficial to us all?

[T. VII, 4] Mr. Field: I can do the best I can in response to that. It's my own feeling that if we finish with Mr. Hartl and Mr. Nye this week we will be doing well and Dr. Morton either a day or two days next week. Perhaps we can go faster than that. That is my own conception.

The Court: Fine.

Mr. Anderson: It's difficult to say how much cross examination. I would imagine that we would have a good deal more for Mr. Hartl than we would for the other two gentlemen. Usually I find during the end of the trial I move a good deal faster. I get a little impatient and I go too fast. It may take only two or three hours for Mr. Hartl.

The Court: I don't mean to press you. I wanted to get your ideas.

Mr. Field: May we proceed then, Your Honor?

The Court: Yes, please.

[T. VII, 5]

Whereupon,

ALBERT V. HARTL,

having been previously sworn, resumed the stand and testified further as follows:

Mr. Field: First, Your Honor, I would like to refer to part of the record of yesterday, the transcript, Volume VI, page 135, lines 7 through 13.

First, I think the question that appears there needs some correction, either I didn't ask it intelligently or didn't come out that way, probably the former.

That isn't all I have in mind, however. I realize that corrections can be made later, but first, with reference to the question, line 7, page 135:

"While we are on that subject matter, are all of the municipalities receiving this wheeling service under the special contracts"—

I think it should then read: "Are they municipalities which have had municipal electric systems which have been established for some time?" rather than as it is stated there. I suggest the record be corrected to that degree.

DIRECT EXAMINATION

(Cont'd)

By Mr. Field:

Q. Then the answer to that question which you gave, Mr. Hartl: "If by some time, the term some time we can [T. VII, 6] assume a period of at least ten years or longer, my answer is in the affirmative, yes."

Now, with reference to that answer, I am interested in having you address yourself to the question for a longer period of time than ten years, and can you do so?

A. Mr. Field, just reviewing, rejogging my memory on that, all of these municipalities that are now receiving wheel-

ing service were in business for themselves when I joined the company 25 years ago.

Q. So we can go back that far, at least?

A. Yes.

Q. Going on from where we left off yesterday, you were discussing, in answer to some questions, the use of the term "true wholesale arrangements or contracts" as distinguished from other situations, and you had given one answer in that regard.

Addressing yourself to that same situation, do you draw some distinction between a true wholesale contract, as you use the term, and what has been referred to as pool transactions, and if so, would you explain why?

A. I do draw such a distinction because there are many other concepts of sale that take place under a pool concept. In a pool, the ultimate objective is a voluntary coordination of electric facilities for the mutual benefit of the parties and the ultimate benefit of the customer, and [T. VII, 7] so you make arrangements for many other things other than a firm source of electric energy that you wish to immediately sell to the ultimate customer.

You make arrangements, for instance, for bringing energy into your system while one of your major units is down for overhaul. You call that scheduled maintenance energy. You make arrangements for the purchase of economy energy. If the economics of the situation indicate that you can get it from the pool at a lesser cost than you can generate it yourself, you do so.

Q. By "you," do you mean any party to the agreement?

A. Any party to the pooling agreement.

Q. Does it work both ways? That is what I am getting at.

A. It does very much work both ways.

Q. Well, now, I suppose I interrupted you in your answer. I didn't mean to.

A. Well, whereas what I consider a true wholesale arrangement is a one-way situation, this second electric entity wishes only to receive energy from you and there is no reciprocal obligation, or, for that matter, ability to return that energy to you under like circumstances.

Q. Now, for the purposes of classification in reporting, for example, to the Federal Power Commission, we have some exhibits in the case of such reports. Are the [T. VII, 8] pool transactions as well as true wholesale contracts as you have described them all reported under one classification?

A. All of such transactions tend to be reported under a caption that the Federal Power Commission prescribes in FPC one, namely, "Sales for resale."

Q. Is it or is it not, then, necessary, if anyone looks at those reports, to analyze the nature of the transaction to tell whether it's a pool transaction or what you describe as a true wholesale arrangement?

A. To intelligently analyze it, one must go into the detail of the totals that would be reported under that caption.

Q. You have been present during the trial this week, have you not?

A. Yes, I have.

Q. I guess we did some of that with Mr. Trommershausen, didn't we, in cross-examination?

A. Right.

Q. Now, you mentioned the Upper Mississippi Valley Power Pool yesterday. May I call your attention to another organization known as MAPP. I don't believe we discussed that yesterday in your testimony. Would you tell us what that organization is and whether Otter Tail Power Company is a member or not?

A. Otter Tail Power Company is a charter member of [T. VII, 9] MAPP, which is an acronym name for Midcontinent Area Power Planners, and it is a voluntary planning agency or organization, having members from ten states in the Upper Midwest. Its objective is to coordinate the scheduling and construction of production and transmission facilities in this ten-state area, to the end that the best coordination of electric facilities possible takes place in this area.

The MAPP organization, likewise, is considering establishing itself into a formal power pool so that it can render even greater service to its membership.

Q. Now, the participation or membership of Otter Tail Power Company in the Upper Mississippi Valley Power Pool as well as MAPP, and I will broaden it to include the interconnections to other systems that you told us about yesterday, has that been or not been on a voluntary basis on the part of Otter Tail Power Company?

A. Otter Tail Power Company has been a willing leader in the coordination and integration of its electric facilities with the facilities of all other types of electric suppliers in its area.

Q. These are examples of that, are they, that we have been discussing, these pools and MAPP, and so forth, are examples of that?

A. They are two examples of organizations whereby the objectives of coordination can be attained.

[T. VII, 10] Q. Now, reference has been made to Otter Tail wheeling, as it's called power and energy to certain municipalities. Does that arrangement run pursuant to the provisions of contracts and written agreements?

A. That arrangement is provided for and is done under the aegis of contracts between parties in the Upper Midwest.

Q. I call your attention, first, to GX-67. This seems to be the only copy we have.

Mr. Field: If I may stand up here and inquire about it, I can work it out that way, Your Honor.

The Court: Yes.

By Mr. Field:

Q. Exhibit 67 is what is referred to as the contract between the United States Department of Interior, Bureau of Reclamation, and Otter Tail Power Company that you had reference to a minute ago?

A. Yes.

Q. As the document shows, that bears date of June 14, 1955. Is this the basic agreement? I know there are supplements, but is this the basic agreement under which the arrangements are made with the Bureau?

A. That is the basic underlying agreement that sort of lays a foundation for a relationship with the Bureau of Reclamation, and then, in turn, many other customers of the Bureau of Reclamation.

[T. VII, 11] Q. Now, referring just in a preliminary way, we will get into a little more detail later, to what's been called the Special Municipal Electric Service Agreements which, for the record, are GX Exhibits 3 through 21. Are those agreements related to and a part of the arrangement with the Bureau of Reclamation as shown by the contract with the Bureau?

A. Yes, they are. I believe that the first whereas clause in all of those special contracts recites that fact.

Q. Now, I would like to call your attention first to the general scope and purpose of the Bureau-Otter Tail contract, if I can refer to it with that shorthand language. Can you describe the general purpose and scope of this contract?

A. The general purpose and scope of the Bureau-Otter Tail contract is an arrangement whereby both parties would attain the objective of using each other's system for their mutual benefit.

Q. Reference has been made to arrangements for delivery of Bureau power to preference customers over Otter Tail's transmission system in this contract.

Are there other arrangements too besides that, for example, does Otter Tail reciprocally have the right to use the Bureau's transmission system?

A. The primary objective, as I understand it, of the [T. VII, 12] Bureau of Reclamation, was to obtain a wheeling agency to take the energy that they had for sale to its customers, in return for providing that wheeling medium, Otter Tail Power Company obtained the use of the Bureau system for transmission of energy for its account and other benefits.

Q. So the use of the transmission grid is a two-way street, then?

A. Very definitely so. That was the import of my terminology in answer to your first question. This was an arrangement that provided mutual benefits.

Q. And are there benefits to Otter Tail Power Company and its consumers as a result of this arrangement to use the Bureau's transmission grid?

A. Yes, there are.

Q. I don't care for any details, but could you just tell us in general what those benefits are?

A. The ability of Otter Tail Power Company to use the pathway of the Bureau transmission for its use, if conditions indicated a need for such use, that the ability to buy economy energy or some type of energy from the Bureau of Reclamation, a standby for Otter Tail in emergencies are some that I could immediately enumerate.

Q. In addition to using each other's transmission facilities under the provisions of this Bureau-Otter Tail contract, you have mentioned some other services that are [T. VII, 13] provided for. Could you describe those generally and without getting into too much detail?

A. Generally those could be described as the providing of services which tends to make the operation of an electric system more efficient and more reliable.

Q. You have already mentioned breakdown or emergency service, is that one of the items that go into that picture?

A. That is one. And having alternate paths for transmission of energy gives greater assurance of reliability.

Q. The contract's general subdivisions or outline as contained in the index contains six parts, and I presume an examination of the details of each of those parts would furnish more information on the subject matter we have been discussing?

A. Yes, it would. This is a lengthy, complex and involved contract, and a summary, however, can be obtained from the index.

Q. Now, one of the subdivisions of the contract as indicated in the index is part four which has the heading, "Transmission Service for the United States." I presume that refers to primarily the delivery of Bureau power to their preference customers?

A. Yes.

Q. And part five which follows it has the heading of, "Transmission Service for the contractor." I guess the [T. VII, 14] term contractor means Otter Tail Power Company in this agreement, does it?

A. In this instance, yes.

Q. And there we have the provisions for the use by Otter Tail Power Company of the facilities of the United States provided for in the contract?

A. Right.

Q. Now, referring to certain particular provisions in the contract and first in part four which is the, "Transmission Service for the United States," there are certain provisions in there that are the subject of argument in this case. I would like to call them to your attention and ask you some questions with reference to it. I first call your attention to a provision on page 26 of the agreement which is paragraph 26f, and first, for our convenience in discussing it, it's a short one, would you read that into the record, please?

A. Quoting that subparagraph "f":

"It is understood and agreed that the contractor by entering into this contract does not dedicate or intend to dedicate its facilities to the common carrying of electric energy for the account and use of the United States or anyone else."

Q. Now, is that clause a part of the policy of Otter Tail Power Company or not?

[T. VII, 15] A. That is a long-standing policy still existent of the company, namely, that we do not hold ourselves out as a common carrier.

Q. And without looking at the contracts themselves unless necessary, is this same clause included as one of the provisions in the special municipal electric service agreements?

A. That same provision does tend to be included in the other agreements that have been filed as exhibits in this case.

Q. And particularly the agreements with the municipalities that are tied in with the Bureau-Otter Tail contract?

A. Those are the ones to which I had reference.

Q. Now, I call your attention to another particular clause in the Bureau-Otter Tail contract and particularly starting

at the bottom of page 27 which has this subdivision paragraph (c), the last two lines of that page and continuing over to page 28. All of it is not material to the question that I am going to ask you with reference to it. I quote for the record, if I may, the portion of it that I would like to address a question to. Quotes starting in the second line from the bottom of page 27, subparagraph (c):

"The electric power and energy to be delivered by the contractor to the United States and/or its customers [T. VII, 16] pursuant to this part four shall be limited to such electric power and energy as is necessary for preference customers (as defined in the Reclamation law) and Federal establishments:"

Then there is a paragraph and then there are two paragraphs, one and two. I will skip down to paragraph two, continuing the quotes:

"Which are located and use such power and energy outside the corporate boundaries of municipalities wherein the contractor now serves at retail."

Tying in that provision with the date of the contract wherein the contractor now serves at retail, that would be as of June 14, 1955?

A. That's right.

Q. Now, in the negotiations which preceded the culmination and signing of this Bureau-Otter Tail contract, did the two clauses that I have just referred to enter into those negotiations?

A. Those two clauses very predominantly were a part of the negotiations, and I would say it prolonged negotiations tending toward the final development of that signed contract.

Q. Generally over what period of time did the negotiations extend to arrive at the agreement, the Bureau-Otter Tail contract?

[T. VII, 17] A. Actually the date 1955 culminates a seven-year period of negotiations. Negotiations relative to this contract started back in 1948.

Q. Now, the general objective of the contract you have described, does it involve a voluntary coordination of electrical facilities?

A. That is the primary objective of that contract.

Q. Let me ask this. Would Otter Tail be willing to and has it engaged in on a voluntary basis in reaching that goal, not only in this instance but in other instances in the operations of the company, namely, the voluntary coordination of electrical facilities?

A. As I thought I already mentioned, and I repeat it, Otter Tail Power Company strives to foster such voluntary coordination of electrical facilities and hopes to indicate that it is a leader to that end.

Q. Now, to accomplish that goal or resolve the problems that were involved in the negotiation of the Bureau-Otter Tail contract, what part did these particular clauses I have called your attention to play?

A. In order to attain the greater good, namely, the desirable coordination of facilities, it developed through the negotiations that the inclusion of these two paragraphs was vital to the attainment of that ultimate objective and therefore they are included in the final product.

[T. VII, 18] Q. Was the wording of the clauses a subject of negotiations and if so, was it worked out over a period of time or not?

A. The wording of those paragraphs was the subject of long negotiation, and the final wording is the end product of serious discussions by the Bureau of Reclamation and Otter Tail Power Company personnel.

Q. And in the several drafts which I presume took place in those negotiations, as well as the finished product, do you know whether or not that language in these clauses were submitted to the Department of the Interior in Washington and supervisory personnel and the head of the department?

A. It is my understanding that the Regional Department of Interior representatives with whom we carried on our negotiations, left us with a very definite impression that any such language had to be cleared with their superiors in Washington, D.C.

Q. Now, can you explain and perhaps in a little more full fashion the need for such provisions in this contract to attain this goal of voluntary coordination facilities?

A. In order to attain the greater goal of voluntary coordination of facilities, there must be developed an atmosphere of mutual trust and confidence as between the parties, namely, that there will be nothing that, in this [T. VII, 19] contract, that will operate to the detriment of one of the parties because if it would, then why should it enter into that particular agreement; and in order to provide that climate of confidence and mutual trust, it was necessary that these paragraphs be included in it.

Q. Are the provisions in this paragraph related to what has been discussed, I don't know as we have come to it in your testimony yet, but by other witnesses and before the Court for that matter, of not furnishing Otter Tail's own facilities to assist a retail customer or town now served by Otter Tail leaving you and setting up its own system, is it related to that area?

A. If I have not already touched on that, I certainly would be remiss if I did not speak to that as a chief executive officer of the Otter Tail Power Company.

That is the construction of the situation, that these paragraphs, if they indicate anything, indicate that Otter Tail Power Company does not intend to lend the use of its own facilities to another party to help to destroy Otter Tail Power Company; that if I did not so protect the company, I would be remiss in my responsibility to our customers, our security holders and my fellow employees in the company.

Q. Now, referring for a moment to the special municipal service agreements which are Exhibits 3 through 21—Well, I will direct my inquiry to Exhibits 3 through 20. Exhibit 21 which relates to the City of Willmar needs special consideration.

[T. VII, 20] I have those exhibits before me. Perhaps we could take the one on top, which may be what the plaintiff did. That refers to Tyler, Exhibit 3.

Can you generally refer us and the court to the tie-in of these special municipal electric service agreements with the agreement with the Bureau of Reclamation that we have just discussed?

A. As I previously indicated the first whereas paragraph in the contract, and briefly quoting here a portion: "Whereas, the United States of America through the Bureau of Reclamation, hereinafter called the Bureau, has or will enter into an agreement with the municipality," and in this case Tyler, "as a preference customer under its marketing criteria, and has contracted with Otter Tail and named Otter Tail as the agent to deliver electrical power and energy to the municipality."

Q. Then, is this a factor, Mr. Hartl, that these special municipal electric service agreements are part of what we might call a package negotiation between three parties, contractual arrangements between three parties, namely, the Bureau of Reclamation, Otter Tail Power Company and each of these municipalities?

A. That is correct.

Q. Let me ask you this. Were the negotiations which resulted in this three-party arrangement all tied in with each other aimed at the same purpose?

[T. VII, 21] A. Yes, they were.

Q. In connection with the special municipal electric service agreements which were part of this package, are there other services made available or provided for besides the delivery of Bureau power for the Bureau of Reclamation to the municipality as a preference customer?

A. Yes. I believe in these contracts you will also find a provision that Otter Tail Power Company will stand by and firm up the Bureau of Reclamation.

Q. Is that in the case of some trouble on the transmission—

A. Line of the Bureau of Reclamation, the community, the municipality will continue to get reliable electric service.

Q. As we look through it, we can see the different paragraphs providing for the several types of services that are provided for?

A. Yes.

Q. Referring to a part of Exhibit 3, page 11—

Mr. Field: I am not sure whether the Court has this particular contract before it.

The Court: Yes, I have.

By Mr. Field:

Q. —page 11, I will refer you to the last paragraph on the page, and for the purpose of discussion, would you [T. VII, 22] read the first sentence of the last paragraph or the whole paragraph, whichever is desired?

Let's take the first sentence first.

A. "It is agreed that Otter Tail is a public utility engaged primarily in the business of supplying electric service to ultimate customers at retail and that Otter Tail does not hold itself out generally to serve wholesale purchasers and limits its sale of electric service at wholesale to special contracts which include this agreement."

Q. I think we will stop there for the moment. Is that another documentation of the policy that you told us about yesterday?

A. Yes, it is.

Q. It is practically the same language as the filing before the Federal Power Commission in Exhibit 83 that we talked about yesterday?

A. If it isn't the exact language, it is very close to it.

Q. The last sentence on that page, which I guess is before all of us, so it may not be necessary to quote it, does that have relation to the policy that you mentioned about using Otter Tail's facilities to pirate or take away its own customers?

A. That is what that next sentence pertains to, yes.

Q. What we are illustrating in the Tyler contract, [T. VII, 23] Exhibit 3, is true generally of all these contracts, is it not?

A. Yes.

Q. I think there is one more clause I would like to call your attention to, and that occurs on page 4 of Exhibit 3, the last complete sentence on that page. I will ask if you would just read that into the record for the purpose of a question.

A. "It is expressly agreed that Otter Tail does not dedicate or intend to dedicate its facilities to the common carrying of electric power and energy for the account of the Bureau, the municipality or anyone else."

Q. Does that represent another documentation of the same policy that you testified about as it occurs in the Bureau-Otter Tail contract?

A. Yes.

Q. I believe that clause is in all the special municipal electric service agreements, also?

A. Yes.

Q. I eliminated GX-21 which relates to the City of Willmar because I commented that it needed special attention. Referring to Exhibit GX-21, which has the heading "Emergency Interchange Agreement," that is an agreement between Otter Tail Power Company and the Municipal Utilities Commission, an agency of the City of Willmar," Is it?

[T. VII, 24] A. That is correct.

Q. What is the general purpose and scope of this contract?

A. The general purpose and scope of this contract is an arrangement for an emergency interconnection between Otter Tail Power Company and the City of Willmar. To understand the situation, I may describe Otter Tail's facilities in that vicinity.

Near Willmar is the termination of a long radial line of Otter Tail Power Company serving several communities en route, the last of which, I believe, would be Pennock. To assure greater reliability to that series of towns, Otter Tail wished to obtain a source of emergency energy at the far end of the line, and that was the objective desired in this arrangement with the City of Willmar.

Q. This isn't a contract providing for the wheeling of Bureau power?

A. No, inasmuch as the primary supplier, the wheeling agent for the City of Willmar is another electric supplier.

Q. Can you name the other electric supplier?

A. Rural Cooperative Power Association at Elk River, Minnesota.

Q. Attention has been called in some of the presentations and briefs, and otherwise, to a particular clause in that con-

tract which I would like to call your attention to now. It's on page 2, paragraph 9, and perhaps you could read that into the record, and then I will ask you a question about it.

[T. VII, 25] A. Reading paragraph 9:

"Otter Tail agrees that it will not serve customers with electricity from the transmission line herein agreed upon within two miles of the city limits of Willmar, wherever such limits may exist, without the consent of the municipality. The municipality agrees that when consent is given under the above limitation, such consent is continued until the size of the service is altered or until the expiration of this contract."

Q. What part did that clause play, if any, in negotiation and the resolving of whatever problems there were to accomplish the signing of this contract with Willmar?

A. The inclusion of that paragraph was of concern to the municipality of Willmar, and in order to obtain the benefits that Otter Tail Power Company wanted from that interconnection, it, in the process of the mutual negotiations, had to accept that particular paragraph, and it so appears in the contract.

Q. Well, the provision itself, paragraph 9 that you read, is a limitation on the right of Otter Tail to serve within two miles of the city, and that is just one way in this case, is that correct?

A. That is correct. The City of Willmar could serve such customer but Otter Tail may not.

Q. Can you tell us, if you know the reason for [T. VII, 26] Willmar being interested in that clause?

A. The City of Willmar wanted that clause inasmuch as they were concerned with the development of an industrial customer that might take place outside of the city limits in the vicinity of this transmission line, and inasmuch as they had

fostered such a customer, they wished to have the benefits of the providing of service to such an establishment.

Q. Here we have—

Mr. Anderson: Your Honor, I think I ought to object to that question and answer as being pure hearsay. He is testifying as to why the City of Willmar put this in the contract, and it seems to me we are getting involved in hearsay.

The Court: Well, I suppose it is technically hearsay, but I suppose he would have to have a lot of people come here and tell us the story. I will receive it for what it is worth and consider it accordingly.

By Mr. Field:

Q. In that regard, do you have personal knowledge of this matter?

A. I did not personally conduct these negotiations, but in my capacity as a chief executive officer of the company, it is the responsibility of all of the other officers of the company that in the normal course of business they report to me the circumstances surrounding any negotiations that they [T. VII, 27] undertake in the name of the company, and it was in that light that I have knowledge of the circumstances surrounding this contract.

Q. In any event, is it true that we have here another example of the desire of one of the contracting parties and the necessity of inclusion of the clause in order to arrive at the objective of coordination of facilities?

A. That is correct.

Q. Now, I would like to call your attention to Exhibit GX-22, which is the integrated transmission agreement between cooperative power association and Otter Tail Power Company. That is the agreement as indicated in my statement and dated August 25, 1967, is it?

A. That is correct.

Q. Could you tell us the general scope and purpose of this agreement?

A. The general scope and purpose of the agreement represented by GX-22 is a desire on the part of Otter Tail Power Company and a number of rural electric cooperatives banded together as the Cooperative Power Association to develop a joint transmission system and provide for a financing effort of that system in such a manner that all parties would have access to the use of that system without the payment of any monies for such use.

[T. VII, 28] Q. Let me ask you this before we get into some of the details of the agreement. Does the integrated transmission system that is reflected in this agreement also extend to other utilities and similar, at least parallel agreements between the other utilities and these contracting parties?

A. CPA's territory also extends into what I may describe as the service area of Northern States Power Company and Interstate Power Company. However, as of this date, parallel agreements have not yet been negotiated. Similar agreements have.

Mr. Field: Excuse me just a minute, Your Honor.

The Court: Sure. Maybe we can recess now for about 10 minutes.

(Recess taken.)

By Mr. Field:

Q. During recess we have located another exhibit that's related to Exhibit GX-22, namely GX-76. Now, in general, Mr. Hartl, in what way is GX-76 related to GX-22 and the integrated transmission arrangement that is involved?

A. GX-76 names all the parties to the coordination agreement involving the transmission system of CPA and reminds

me that I was in error when I named the Interstate Power Company as a company having a similar agreement. I meant to say Minnesota Power Company, although CPA does [T. VII, 29] extend into the interstate territory in southern Minnesota, they have not yet arrived at a coordinating agreement.

GX-76 has the heading, "General coordinating agreement."

Q. What are the parties that are named therein as related to this integrated transmission arrangement?

A. As of the 25th of August, 1967, the parties are Northern States Power Company, Otter Tail Power Company, Minnesota Power and Light Company and the Cooperative Power Association.

Q. Now, in that same vein and referring to the GX Exhibit 22 on page 3, the paragraph which has the number of 0.08, does that refer to similar agreements within Minnesota Power and Light Company and Northern States Power Company?

A. Yes, it does.

Q. Now, you have told us that the goal or main objective of this contract is the coordination of facilities in the form of an integrated transmission system. Are there some provisions in that regard that are perhaps peculiar to this arrangement that I will ask you to describe, in the nature of arriving at a date when the investment of the parties will be equalized? Could you comment on that phase of the agreement for us?

A. Yes. One of the objectives of this agreement is the development of a transmission system whose ownership would be shared by the parties in proportion to their utilization [T. VII, 30] of that system as of the date certain and to that end because there is not that much construction that is needed in order to accomplish this coordination, a most unusual thing has taken place. Otter Tail Power Company has voluntarily sold to CPA portions of its transmission system in order that

CPA might accomplish its goal of owning its proportionate share of the facilities.

Q. The contract speaks of a date of equalization that is aimed at being reached in the scope of the contract. What does that term signify?

A. That is the date at which time each party should own transmission in proportion to its use of that transmission, and as of that date, there will be no financial charges one way or the other for the use of that transmission network.

Q. So that instead of paying like a transmission charge or a wheeling charge, when the date of equalization is reached, is this true, that then the parties will freely use the integrated system without the exchange of any consideration for that use?

A. Yes.

Q. Now, this particular agreement with the Cooperative Power Association, is that type of an arrangement one that was of a pioneer nature or not as far as this area is concerned?

A. To the best of my knowledge, this was a pioneer effort and the parties started from the very beginning with [T. VII, 31] no examples to draw on and began to develop drafts of a proposed agreement. I know that it went through many preliminary drafts before arriving at what is now designated as GX-22.

Q. Roughly, what period of time is involved in negotiations in resolving the problems necessary to arrive at the final agreement?

A. There were several years. That's about as precise as I can be without checking the files on this.

Q. And the parties to the negotiations include the entities you have mentioned, do they?

A. Right.

Q. From the standpoint of the Cooperative Power Association, which is the Rural Electrification Cooperative operating, as we have been told, under the Department of Agriculture, Rural Electrification Administration in connection with the negotiations and resolving of the final language of the contract, do you know if drafts and the final draft were submitted for approval to the Rural Electrification Administration?

A. I do know that because some of the time delays as between negotiating sessions were explained on the basis that we are waiting for the reply from Washington.

Q. And calling your attention to the last sheet of Exhibit 22, what does that represent and what is it?

A. That last sheet represents an approval by a [T. VII, 32] deputy administrator of the REA, one Richard Wood, approving this particular contract.

Q. Well, it represents approval of the contract by the Rural Electrification Administration, does it not?

A. Yes.

Q. Among the clauses in this contract is one in particular that has been the subject of some discussion, perhaps, in this case, and I will call your attention to it. It's on pages 22 and 23 of Exhibit 22, and it's paragraph 6.04. It has the heading of "Use of Service." It's a rather lengthy provision to take our time to quote, so I won't ask you to do that.

Can you describe what is provided for in that paragraph for our discussion?

A. In that paragraph is contained a provision that would indicate that CPA would not be entitled to use, without the consent of Otter Tail, any facility of the integrated transmission system which is owned by Otter Tail to transmit or deliver power to any wholesale or retail consumer served by Otter

Tail on or after January 13, 1966, and a similar provision in reverse related to the facilities of CPA under the same date.

Q. Is what you are telling us, this provision works both ways in this case?

A. Yes.

[T. VII, 33] Q. By reverse, do you mean that Otter Tail is not to use the facilities of CPA without CPA's consent to serve a consumer of CPA or its distribution cooperatives?

A. Right.

Q. Now, in the negotiations for this contract, what part did this clause play in the arriving at a solution of the many problems involved?

A. This paragraph was one of the more prominent paragraphs in the course of negotiations with CPA and was mutually desired by the parties, and I am firmly of the opinion that the contract and its major objectives could not have been obtained had not both parties consented to the inclusion of that paragraph.

Q. How about the language of the paragraph? Was that the subject of negotiation and various drafts?

A. There were numerous drafts of that language, and I was informed that that language was likewise submitted to the REA Administrator in Washington, D.C. for comment and suggestion as to language, and this resulting effort is the end result of those many negotiations and inputs of several parties.

Q. Are there similar clauses in the other agreements with the other entities that you have mentioned are involved?

A. Yes, there are.

Q. In that regard, the question I neglected to ask you [T. VII, 34] in connection with the Bureau-Otter Tail contract, is that contract unique in respect to the two clauses I called your attention to which we discussed at some length?

A. No, it is not.

Q. In what way is it in other contracts that you have knowledge of?

A. That is a relatively standard provision.

Q. Now, there are two other agreements, Exhibits 38 and 39 that are in this same category. Perhaps we could refer to those for a moment.

First, to identify these two contracts one at a time, Exhibit GX-38 is what, Mr. Hartl?

A. GX-38 is an agreement between Otter Tail Power Company and the RSR Electric Cooperative.

Q. And generally, if I can ask it this way, is this also the result of negotiations arriving at a contract for the coordination of electric facilities?

A. That is correct.

Q. Perhaps I can hurry along these two if I handle them together.

I refer you now to GX-39, and if you will tell us what that is.

A. That is a transmission service agreement between Otter Tail Power Company and the Traverse Electric Cooperative, an REA Cooperative.

[T. VII, 35] Q. Also—

A. The Lyon-Lincoln Electric Cooperative.

Q. Is also a party?

A. Yes.

Q. Is that, similarly, a contract which has the main objective of coordinating electric facilities?

A. That is correct.

Q. Are these two exhibits, 38 and 39, illustrative of Otter Tail voluntarily entering into such agreements with REA Cooperatives?

A. They are illustrative of Otter Tail's willingness and actual implementation of coordination agreements with all types of electric suppliers in its area.

Q. Now, without taking the time, which we can do if it is suggested, but I will try it this way, without taking the time to call your attention to particular clauses in these two agreements, and calling your attention generally to the fact that there are provisions in each of these agreements which in somewhat similar fashion provide for not using the facilities of the contracting party to take away existing business of the contracting party, I will ask you generally if the same situation as to negotiation, resolving of the wording and final result of arriving at an agreement is similar to the other agreements we have been talking about?

A. Yes, it is.

[T. VII, 36] Q. And is it also true of each of these agreements that the language is submitted to and contract approved by the Rural Electrification Association?

A. Yes.

Q. Mr. Hartl, coming to another general subject matter, and I will ask you if Otter Tail Power Company does in fact have competition at the different levels of its operation?

A. Otter Tail Power Company very definitely has intense competition at all functional levels of its operation, and it would be absurd to even assume that the contrary would be the situation.

At the production or generation level, there are other entities that are ready, willing and able and in some instances already have brought into being generating plants that are willing to sell electric energy to customers of Otter Tail Power Company. Specifically I can name to you Basin Electric Cooperative headquartered at Bismarck that has one generating unit now in operation, has a larger generating unit on the drawing boards, and Monday we heard from Witness Trommershausen that a third unit is already in contemplation.

Q. And are there other examples of generation, for example, the Bureau of Reclamation?

A. There is the Bureau of Reclamation. There is the United Power Association. There is Minnkota Power [T. VII, 37] Cooperative, just to name some of the large installations in and adjacent to what I speak of as our service area.

Q. Are there any regulatory inhibitions against these other entities going into the generation field, erecting, constructing generating plants?

A. In the three-state area in which our company operates, there is no such regulatory inhibition. Federal agencies or the cooperatives are in no way regulated in any one of the states.

Q. While we are on that subject, let's delay that and finish our present subject matter first.

A. Yes.

Q. If you will turn next to one of the other functions of Otter Tail and the existence or non-existence of competition?

A. The next function in an electric utility would be the transmission function.

Q. And does Otter Tail have competition at that level?

A. Otter Tail Power Company competes with any number of other agencies that have built transmission facilities and offer such transmission facilities and make them available to present customers of Otter Tail Power Company.

An immediate point or example, rather, that I can indicate and was mentioned earlier this week in this hearing, is the building by East River Cooperative of transmission [T. VII, 38] lines in Minnesota that did in fact take away loads that in some manner were being serviced by Otter Tail Power Company and Northern States Power Company.

Q. Are there other instances of transmission construction in your area from various entities such as cooperatives or whatever?

A. The Bureau of Reclamation has an overlying high voltage network throughout our service area and that is supplemented in turn by lines of United Power Association, Minnkota Power Cooperative.

Q. And some of the other cooperatives that have been—

A. Some of the other cooperatives have lines capable of providing that type of service.

Q. Are there any inhibitions, regulatory or otherwise, to the construction of transmission lines in your area?

A. The same answer applies as to production facilities. There are no regulatory inhibitions in the three states here under consideration.

Q. Coming then to the remaining function of the distribution or retail sales, does Otter Tail have competition at that level of its operations?

A. At that level the Otter Tail Power Company has the most intense and the greatest number of types of competition in the sale to the ultimate customer. First of all in the distribution function itself.

[T. VII, 39] Under the laws of all three states in which we operate, a municipality has the right following certain legal procedures to go into business for itself, to acquire a distribution system either by purchase, construction or condemnation of an existing system and go into business for itself; and the fact that that can be done and is competition to Otter Tail is evidenced by the fact that three communities formerly served at retail by Otter Tail which have been mentioned in these proceedings: Elbow Lake, Minnesota; Colman and Aurora, South Dakota, have left Otter Tail and gone into business for themselves.

Q. What are the facts with reference to whether or not Otter Tail Power Company has any exclusive franchises to operate in the towns in which it serves at retail?

A. In no one of the three states in which Otter Tail Power Company operates is there such a thing as an exclusive franchise or an indeterminate permit. The franchises are for a definite term and subject to renegotiation upon expiration of that particular term, and they give no exclusive status of any one electric supplier.

In fact, any community can give as many franchises as it sees fit to give. The only rights or privileges that are conferred upon the supplier by that franchise is the use of the streets and alleys of that municipality for the placing of its facilities.

[T. VII, 40] Q. Referring to the area of regulation at the retail level, what are the facts with reference to that situation in the three states, take them one at a time?

A. The three states in which we operate, only North Dakota exercises regulatory jurisdiction over electric utilities, and it does that over investor-owner electric utilities, but does not exercise jurisdiction over cooperatives or any entities of the Federal Government or any municipal operations.

Q. Through what agency does regulation exist over investor-owner utilities in the State of North Dakota?

A. Regulation exists through the Public Service Commission of the State of North Dakota.

Q. You mean that the Public Service Commission does not have jurisdiction over cooperatives or municipals or the Federal agencies in North Dakota?

A. It has no jurisdiction whatsoever except in a limited degree to the safety standards and safety practices of rural electric cooperatives.

Q. For example, take the case of an investor-owned utility such as Otter Tail. If Otter Tail wishes to build a new plant or a new line is it incumbent upon Otter Tail to apply for authority in the nature of a certificate of public convenience and necessity?

A. Specifically in the case of a transmission line, [T. VII, 41] we may not build a transmission line or an extension to an existing transmission line without first applying to and getting from the Public Service Commission a certificate of convenience and necessity.

Q. I take it from your testimony that the other suppliers that you mentioned, your competitors, you might call them, do not need to obtain such a certificate?

A. That is correct. They are free to build such a transmission line when they have the necessary engineering, have secured the right-of-way and they have the financial wherewithal to build the line, they are free to go ahead without asking any state agency in the State of North Dakota for permission to build such a line.

Q. Now, speaking of regulation through the Public Service Commission in North Dakota, does that extend to rates and rules and regulations of operation?

A. North Dakota may be described as a complete jurisdiction state. They have and exercise jurisdiction over all aspects of an electric company's operations which will include rates. It will include service standards. It will include financing.

Q. And does that jurisdiction extend to the other entities that you mentioned?

A. It specifically does not.

Q. Now, you mention that North Dakota was the only [T. VII, 42] state that provided for regulation. I presume you meant at the state level in that answer, is that correct?

A. Thank you for calling that to my attention. That is the context within which I wished to make that statement, that neither South Dakota nor Minnesota exercise jurisdiction over electric utilities although both states have a regulatory agency, but they do not have jurisdiction over electric utilities; but

there is regulation in both states to a limited degree at the municipal level.

[T. VII, 43] Q. Now, a question or two about the North Dakota regulation of investor-owned utilities, and specifically Otter Tail. You told us that your rates are subject to regulation there, and that's one of the three states that you operate in. Is there uniformity in the other two states which Otter Tail Power Company puts into effect with reference to your rates or what is the situation?

A. Insofar as rates are concerned, the exercise of rate regulation by North Dakota in effect produces regulation of Otter Tail's rates also in South Dakota and Minnesota inasmuch as our company tends to observe a uniform rate policy.

In other words, we charge the same rate in every community within the size classification of that community in any one of the three states. Therefore, the rate that applies in South Dakota and Minnesota to a community, the retail rate has already had the scrutiny and the approval of the North Dakota Commission.

Q. A moment ago we put aside for the moment further consideration of the types of competition to which Otter Tail was subjected at the retail level.

Would you address yourself to that situation? What are the different general types of competition which Otter Tail experiences at that level?

A. I have already mentioned that one level, type of competition is that the community may go into business for [T. VII, 44] itself and establish its own distribution system and take away all of the retail customers of the company in that community.

There are many communities in which Otter Tail operates in which another electric supplier is supplying electric energy to a limited number of customers in that community.

Q. What type of supplier, if you can go at it that way?

A. It is some type of supplier or government financed supplier in each instance.

Q. Can you give us a few illustrations of that?

A. To give you an illustration, in our headquarter city of Fergus Falls, the State of Minnesota or some one of its subdivisions qualifying as a preference customer actually buys from the Bureau of Reclamation the energy that is sold to the State Mental Hospital in Fergus Falls, one of the largest potential retail customers in that community, that is preempted by the State of Minnesota.

We do not serve it. In the small community of Erhard, Minnesota, which is a community between Fergus Falls to the north and Pelican Rapids, Minnesota, all of the three-phase load of that community is served by Lake Region Cooperative headquartered at Pelican Rapids. At Carrington and New Rockford, North Dakota, new subdivisions adjacent, immediately adjacent to the former corporate limits of those communities and about to be brought into the corporate limits, if not already in the corporate limits, are being supplied [T. VII, 45] by Tri-county Electric Cooperative.

In the City of Wahpeton, North Dakota, the State School of Science is a customer of the Bureau of Reclamation.

Now, I could go to many other of our communities, but it might be redundant. I believe this is a fair cross-section.

Q. Thank you for those illustrations.

Are there other types of competition that Otter Tail is exposed to at the retail level?

A. There are several other types of competition, specifically at the electrical distribution level. I call the Court's attention to a relatively new concept in our business that goes under the name of the Total Energy Concept, where some one electric customer generates his own electricity using it for all aspects

of heating, cooling or motive power, as indicated by his business.

At the moment, I know of no such installation actually in any one of the retail towns, but I do have personal knowledge several of our large customers, one of our largest in the City of Bemidji, is having an engineer feasibility study made of the Total Energy Concept to be used in conjunction with their business, which is a wood processing business and very adaptable to the Total Energy Concept.

In the City of Crookston, one of the alfalfa palleting establishments in that community has under consideration [T. VII, 46] the Total Energy Concept to replace our company as a source of energy for that particular business. Other customers of ours in other of our communities have asked questions of our engineers that would lead us to believe that they likewise are toying with a study of the Total Energy Concept.

Q. With reference to competition in the supplying of the requirements of customers at the retail level, are there other types of energy that are competitive, and if so, would you tell us about that?

A. Otter Tail Power Company at the retail level has intense competition from other sources of energy. The very specific one is natural gas which now is obtainable in virtually all portions of our system, and we are in direct retail competition for the heating and air conditioning loads in any of our communities with natural gas, and, of course, the advent of natural gas, the availability of natural gas in any of our communities makes possible the Total Energy Concept that I alluded to a while ago.

For the heating loads at any of our communities, we are also in competition with oil and to a lesser degree with other solid fuels. To a degree, we are also in competition for the area

lighting loads with natural gas because they likewise wish to sell space lightings and primarily, I am now speaking of outdoor lighting service.

Q. Have we pretty well covered the types of competition [T. VII, 47] at the retail level, or have I left something out?

A. No, I believe that we have touched on the major types of competition that exist at the retail level.

Q. Now, what are the facts with reference to whether Otter Tail either expects to or has the power to or is meeting these various types of competition or whether it has made any attempt to eliminate it?

A. Otter Tail Power Company is an exponent, supporter and an ardent believer in the American free enterprise system which is based on the forces of competition openly and freely taking their effect. Therefore, Otter Tail Power Company expects and, in fact, welcomes competition at all levels and does not have the slightest desire or intention or plan to eliminate competition at any point.

The only thing related to that is that Otter Tail Power Company does not feel that it must lend the use of its own facilities to a competitor to help destroy the business of Otter Tail Power Company.

Q. In that regard, what, from the standpoint of management, and you as head executive of Otter Tail Power Company, does this desire of not furnishing your own facilities to help the other systems, what potential effect does that have in the operation or future of Otter Tail Power Company?

A. In my opinion, the preservation of that policy and that concept is vital to the future of Otter Tail Power [T. VII, 48] Company. We will meet all legitimate competition, but if we would be forced to lend the use of our own facilities to a competitor to help him drive us out of business, then it is my opin-

ion that I would be making an imprudent, improper business judgment that would not be to the benefit of our own 100,000 present retail customers, our 10,000 or more security holders or the thousand employees that are associated with me in managing and operating the company; that we simply would be tending to drive Otter Tail out of existence if we did not maintain that policy; and in that way, we would destroy the competition that is now brought about by Otter Tail being an electric supplier in our community, that competition would be diminished.

[T. VII, 49] Q. Now, on this last subject that you have suggested in your answer, what effect would the compulsion of using Otter Tail's facilities to help erode your business, as you have described it, have upon Otter Tail's ability to be a competitor in the market?

A. It is my firm and sincere opinion that an erosion of the Otter Tail system brought about by the utilization of our facilities, our own facilities to help our competitors, would so seriously impair the ability to continue operation, and more vitally it would so impair the credit of Otter Tail Power Company, that we would no longer be able to command the funds necessary for expansion to take care of normal load growth or any further expansion to bring about even greater reliability of service.

Q. We will come more specifically to the area of impairment of credit, Mr. Hartl. But first, what effect would this situation have upon the viability of Otter Tail in the competitive market, perhaps you have already told us?

A. Over a period of time, the utilization of our own facilities to assist a competitor in leaving us as a retail customer would destroy what is now a viable package as a utility that brings the benefits of scale to over 100,000 customers. The ability to do that would be destroyed.

Q. You have spoken of Otter Tail's system being an integrated system serving these 460-odd towns. Of what [T. VII, 50] importance to the viability of the company is the substantial maintenance of the integrated system?

A. By having interconnected and integrated into one utility network all of the communities which we now serve at retail, we have brought to them the great benefits of scale that they otherwise could not have aspired to as isolated entities; and we have further brought to them a standard of reliability that could not be attained at the same price if they operated as isolated entities.

We have brought to them the satisfaction of rate regulation, the supervision by some Government agency. We have brought regulated rates to them, and if this system begins to fall apart, all of these benefits will tend to be denied to the communities that we now bring such benefits to.

Q. What effect, if any, would it have on the remaining customers of Otter Tail if town by town is eroded from your integrated system?

A. Whenever one group of retail customers would leave the present Otter Tail system, it would throw an added burden onto the remaining retail customers of Otter Tail Power Company because the fixed charges on the physical plant of Otter Tail Power Company remain as do the fixed charges on the capital of Otter Tail Power Company still remain.

They do not diminish in proportion to the leaving [T. VII, 51] of each individual retail customer, and therefore the economic burden becomes greater on the remaining customers to the point, as the erosion progresses, that we are priced out of the market and are no longer competitive with other potential suppliers of electricity.

In other words, the Otter Tail system ceases to be a viable utility entity and needs must go out of existence.

Q. Reference has been made in various contexts to what I might refer to generally as agitation for municipal systems being established in the area served by Otter Tail Power Company. Certain examples such as Elbow Lake, Hankinson, Aurora and Colman have been given, but talking about that subject generally, is that the type of situation that you are familiar with and has it been in existence for some time or what are the facts with reference to it?

A. What you categorize under the term of municipal agitation, namely, the inclination or intention or desire of some one muncipality to go into business for itself, has been a fact of life with Otter Tail Power Company for the entire period of its corporate existence and in my opinion will continue to be a condition which exists into the future. It is accelerated at certain points in time because of a combination of conditions that exist at that particular time.

So when and if there will be another peak period [T. VII, 52] of agitation is dependent upon the conditions that will exist in the future of which I am not capable of foreseeing at this particular time.

Q. Well, referring particularly to the complaint or relief that's requested in this case which we can at least read whether it's foreseeable or not, we hope it isn't, but referring to that, the plaintiff asks in this case for the Court to enjoin Otter Tail from refusing to sell at wholesale and from refusing, declining to wheel electric power energy to municipalities that seek to leave Otter Tail's integrated system.

Assuming that such a situation should develop, what would be your opinion as to the effect upon the municipal agitation and the erosion of the Otter Tail system?

A. If this Court in its wisdom should arrive at such a conclusion, it is my firm opinion that there would be an accelera-

tion of what we speak of as municipal agitation throughout the Otter Tail system because in effect such a decision would clear the way for any municipality to go into business for itself and get all of the alleged benefits of such municipal operation without any of the related responsibilities that would—that should be met by that community if it would bear its full economic burden of bringing such a utility into operation, into being.

Q. Now, we are still talking about furnishing Otter [T. VII, 53] Tail's facilities to accomplish this purpose, are we not?

A. Yes. And that was the purport of my answer when I said it would make clear the path that this would force Otter Tail Power Company to lend the use of its existing facilities for which its investors paid their money so that Otter Tail could build it, and we must lend the use of the facilities and as such not keep faith with our security holders to the end that our business would be eroded by our newly organized competitors.

Q. Speaking, if I can direct your attention to these two items, furnishing wholesale service being one of them, what are the facts with reference to whether a municipality in reality would seek as a firm source of supply wholesale service from Otter Tail Power Company?

A. I do not believe that there can be in the Otter Tail service area a sincere request on the part of any municipality for wholesale service from Otter Tail Power Company, and that is evidenced by the fact that a goodly number of communities in Otter Tail's service area at another period in time were getting wholesale service from our company, but every one of them has left Otter Tail to become a customer of the Bureau of Reclamation; and it is my firm, personal opinion that any

such request that is made of us for wholesale service is merely a subterfuge to obtain a connection to our system so that there is established a [T. VII, 54] physical path whereby underpriced Federal power or power from some Federally financed entity can be brought to that community.

Q. You spoke of underpriced, you used the term underpriced government power. What did you have in mind by the use of that term?

A. Two of the largest elements of cost in any true economic project are taxes, both local or what I will categorize as ad valorem taxes used by the lower levels of government as a source of finance, and the corporate income tax which is a major source of revenue to the Federal government, and then the interest costs upon the amount of money necessary to fund the physical facilities of any project; that because government entities do not have—when they issue security, they tend to be tax free security, they are saleable at a lower interest cost than Otter Tail Power Company could obtain as a specific, for instance, and with taxes and money costs or interest costs being two of the major components of the overall costs of any economic project, if one group, in this case the Federal Government, does not have to sustain either of those costs, it is mathematically capable of offering its product to a customer at a lower cost than at a—strike that—at a lower price than can Otter Tail Power Company; and therein comes my term underpriced, because the cost is exactly the same for both [T. VII, 55] entities except they are hidden in the case of the Federal government, and those costs that are not absorbed by the project then must be passed back to the remaining taxpayers or remaining projects in the economic community because the government must still be supported at all levels, and the people that invest their money still will demand the return indicated by the marketplace.

Q. Let me ask you this, Mr. Hartl, in relation to the electric industry, are the capital funds a major expenditure as compared to other types of industry? Can you comment on that situation for us?

A. The cost of financing the physical properties of Otter Tail Power Company are one of the major components in our entire list of costs, and that would be true of any investor-owned utility as distinguished from a Federally financed project which gets its money as an appropriation from the Federal treasury and has no obligation to return that cost or any portion of it to the Federal treasury.

Q. I had in mind more specifically, and I should have asked my question a little more intelligently, as to the—

The Court: Maybe you could reword that at 2:00 o'clock.

Mr. Field: I would be glad to, Your Honor.

The Court: We will recess until then.

(Whereupon a recess was taken until 2:00 p.m., June 9, 1971.)

[T. VII, 56] (June 9, 1971, 2:00 o'clock P.M.)

(Appearances as heretofore noted.)

Whereupon,

ALBERT V. HARTL

resumed the stand and testified further as follows:

The Court: Mr. Field.

DIRECT EXAMINATION

(Continued)

By Mr. Field:

Q. As we recessed, Mr. Hartl, I was going to reword a question. I will put it this way:

What is the capital intensity in the electric business as compared to other businesses? Can you give us some information on that?

A. The electric utility business is possibly one of the most capital intensive businesses in the United States with an approximate ratio of 4 to 1.

Q. What does that mean?

A. That means that in order to get $1 of annual revenue you must invest at least $4 in plant, as distinguished from most industrials that expect to have a reverse ratio, where they will turn over, in the jargon of the economist, several times a year; they might be able to get a dollar of revenue out of 30 cents capital investment.

Q. That has some bearing on your testimony as to the [T. VII, 57] effect of the cost of capital that you mentioned?

A. Very definitely, inasmuch as you need so much more capital to obtain a dollar of revenue, the cost of that capital then becomes a greater factor in your overall costs.

Q. I am returning for the moment to the matter of municipal agitation, as we called it in some of your previous testimony this morning.

What are the facts, if you have any, with reference to whether other towns in the Otter Tail Power Company service area are watching the proceedings in this case as well as the companion Elbow Lake case?

A. It has repeatedly been called to my attention and it was illustrated by the testimony of government witnesses on the first days of this particular trial, that other communities now served at retail that Otter Tail Power Company are watching the results of these two cases which you mentioned, with the thought in mind that if a favorable solution to their end is obtained through these cases, their ability and desire to go into the municipal distribution of electricity is facilitated. So there are a number of towns that are closely and actively watching these proceedings.

Q. Does that have a bearing on your testimony as to the extent of municipal agitation or another peak, as you called it, that might be anticipated?

A. Very much so. This is one of the theories or [T. VII, 58] conditions that I mentioned that can accentuate the consideration of municipal ownership within our service territory.

Q. Are you inferring that there should not be municipal agitation or that Otter Tail expects there not to be or that Otter Tail expects to prevent municipal agitation?

A. No one of those situations is so. I had indicated previously that I expected municipal agitation will always be with us. It is one of the rights of all of our communities to consider and plan alternate sources of utility service.

Otter Tail Power Company does not intend and has not inhibited the consideration by communities of that alternative.

Q. What method or methods does Otter Tail use in presenting its side of this matter where the matter does reach a point, municipal agitation reaches a point where it's up for decision either at the council or electorate level or in the town, generally?

A. Fundamentally, Otter Tail Power Company attempts to sell the merits of the free enterprise system to the inhabitants of the community; and secondarily, we attempt to place a value in the minds of the public in the personalization of Otter Tail's service.

Q. Are there other programs that your company helps communities with in the way of industrial promotion, and such? If so, would you describe it briefly?

A. We have other programs and I believe all of those [T. VII, 59] might fall within the category of personalization of utility service. Otter Tail Power Company diligently assists all of the communities it serves at retail in the field of indus-

trial development, area development and community development, each of which is, to some degree, different from the other; that we instruct our employees to take an active intelligent interest in all community affairs, to the end that insofar as the townspeople are concerned, we are not a faceless corporation offering utility service; that the community will recognize that there is an added value to having Otter Tail people in that community over and above simple utility service.

Q. Does the level of quality of electric service enter into this picture as an item in connection with presenting Otter Tail's story to the public?

A. In many situations it has been one of the compelling factors that dissuaded the community from going ahead with the thought of municipal service. Because I realize what I will say next is a self-serving statement, but Otter Tail Power Company has developed and has maintained a good reputation for service reliability and for quality of service, and that is appreciated by the customer.

Q. Also, in the area of municipal agitation and competition, which it essentially is, are there some instances that are going on right now that illustrate the existence of [T. VII, 60] this competitive factor?

A. There certainly are, and it just further indicates the veracity of what I said earlier, that this situation will always be with us.

Within the last month, the community of White, South Dakota, has apparently started proceedings to establish its own municipal distribution system. It has in no way gotten in contact with its present supplier, Otter Tail Power Company. We gather this information that I have just repeated by reading official notices in the newpapers of the area.

[T. VII, 61] Q. In the White, South Dakota, situation, reference was made, I guess, in my examination of one of the

other witnesses to an election that was held on the subject matter. Are you familiar with that?

A. I am familiar with that, that there was an election on the subject held June 1, just past.

Q. While this trial is going on?

A. Yes.

Q. And the outcome of that?

A. The outcome was decisively in favor of going ahead with a municipal plant.

Q. Now, what are the resources for supply of electric power to the municipality of White, South Dakota, that you are familiar with?

A. The information that I am familiar with and which I obtained from the legal notice calling the election indicates that the municipality of White, South Dakota, proposes to be served by the Sioux Valley Empire Association which is an REA cooperative which also serves the communities of Colman and Aurora, South Dakota, previously mentioned in these proceedings.

Q. Physically are the lines of the Sioux Valley Empire Electric Association approximate to the municipality of White, South Dakota?

A. They could be described as being virtually [T. VII, 62] immediately adjacent to White, South Dakota.

Q. Sioux Valley Empire Electric Association, I guess has been pointed out by other witnesses, is a member of what G&T cooperative?

A. It is a member of the East River G&T cooperative headquartered at Madison, South Dakota, which in turn, as a supplier, is a member of Basin Electric Cooperative based at Bismarck, North Dakota.

Q. And I believe also has the contractual relationships with the Bureau of Reclamation, if I recall the testimony of others?

A. It is one of the wheeling agencies for the Department of Interior in South Dakota, or that portion of South Dakota east of the Missouri River from whence it gets its name.

Q. Are there other instances currently going on that may not and probably haven't reached the stage of an election that you are familiar with, of agitation of this type?

A. There are two others current that I can call to the Court's attention. One is the unincorporated community of Rutland, South Dakota.

Q. What entity, if any, electric supplier is furnishing competition there, if you know?

A. That, to the best of my knowledge, it would again be the Sioux Valley Empire Association, an REA cooperative. [T. VII, 63] Inasmuch as we have received a communication from the municipality stating that they wish to discontinue service of Otter Tail Power Company and take service from the Rural Electric Cooperative.

Q. Are there other instances that are current that come to your attention?

A. There was another instance called to my attention by one of my district managers who is stationed at Oakes, North Dakota, last night, wherein he reported to me that Mr. Art Jones, the president of Basin Electric Cooperative appeared before the Britton council—

Mr. Anderson: Isn't this hearsay, Your Honor?

The Court: It sounds like it is, doesn't it?

Mr. Anderson: I object on that basis.

Mr. Field: It has the aspects of hearsay, Your Honor, but I can develop, I think, that it's part of the general course of

business of the company, and it's come to Mr. Hartl's attention in the regular course of business and has the status of business type information and perhaps the truth of its content might be confined to the fact that he received such a report without offering it for the proof of the fact itself if that helps its admissibility as evidence.

[T. VII, 64] The Court: I'm not sure it does, but we have no jury to mislead so you can tell us about Britton.

The Witness: That Mr. Jones appeared before the Britton City Council this last Monday, the 7th of June, and attempted to persuade the council to go into the municipal operation of an electric utility and to obtain its capacity, its power supply from the Bureau of Reclamation, and that he would assure them that Basin Electric would back up the deal.

By Mr. Field:

Q. Now, speaking of competition from the cooperatives and their willingness or lack of it to furnish service to municipalities as such, have you knowledge, factual, of whether or not that has occurred?

A. Cooperatives in the three states in which we operate serve many communities. Some they serve directly with the customers being members of the cooperative, but in all three states there are instances where cooperatives serve a municipal operation.

Q. By that you mean on a wholesale basis?

A. Yes.

Q. Also in the competitive area of your testimony, do you or do you not have factual material to present to us as to whether cooperatives take part in proceedings for the [T. VII, 65] establishment of municipal electric systems in opposition to Otter Tail's efforts to persuade the powers that be in the electorates that they should stay with Otter Tail?

A. Yes. I feel that I am in possession of personal knowledge of such situations, specifically at Colman, South Dakota, the mayor—

Mr. Anderson: I thought that we had in our direct case reached an understanding with the Court that we weren't going to spend the time exploring the reasons why these people decided to go into the municipal power business, if you will. It seems to me like we are now veering into that area.

Mr. Field: Well, I don't accede to counsel's characterization of the interrogation of the witness. This goes into the field of the existence of actual aggressive competition that the company is subjected to and from a particular source.

Mr. Anderson: Now, we had, as you will, Your Honor, recall, we had a witness here from Colman and we had a witness from Aurora and I don't recall Mr. Field going into these subjects with them. It would seem to me that the appropriate time to have gone into this would have been with them since they were the people in all likelihood that could have given us personal testimony about these sorts of things if in fact these sorts of things [T. VII, 66] happen.

I don't know that it serves any useful purpose to have Mr. Hartl give us some hearsay information about this. We had the opportunity last week to go into this thing with the people who were there at the time or sitting there if they knew these things were supposed to have been happening. I gather the gist of his testimony is that co-ops are trying to encourage municipal power.

Mr. Field: Right. And took an active part in it.

The Court: Is that the gist of his testimony?

Mr. Field: I would say so. The activities of them are documented by some of the exhibits we have in the case.

The Court: Well, if it's in the exhibits then maybe you can skip over it then.

Mr. Field: I will do it very quickly.

The Court: I can almost take judicial notice that they do that, I suppose. I suggest you go into something else.

Mr. Field: If the Court can take judicial notice that co-ops are encouraging municipal operation, that's the substance of his testimony.

The Court: I am not sure but what [T. VII, 67] counsel isn't right that we don't want to get into this controversy about municipal ownership and municipal power. I think that is what your testimony is tendered for.

Mr. Field: What I wanted to present evidence on was evidence that negative Otter Tail being a monopolist, the reverse of which it's subject to competition, it tries to meet competition, that was the general course.

The Court: The gist of this seemed to be that co-ops encourage municipal ownership and getting into municipal ownership philosophy then, wouldn't we, whether it's good or bad?

Mr. Field: Not necessarily, but the existence of the force of competition was the thrust of the examination, Your Honor. And if Your Honor wishes me to discontinue, of course I will, but that was the purpose and thrust of the interrogation.

The Court: I suggest you go on to something else maybe.

Mr. Field: Might I suggest for the record, for convenient reference in the record that GX Exhibits 292-A and 292-B are at least in part the documentation that I referred to and that does refer to, in this case, Finley, North Dakota, and is an example of the type of thing I was getting into.

[T. VII, 68] By Mr. Field:

Q. Before going on to another general subject matter, my attention has been called to the fact that I omitted to ask you questions I intended to about the special municipal electric service agreements, Exhibits 3 through 20, GX Exhibits 3

through 20. Attention was called by another witness, I am using GX Exhibit 8, Tyler Special Municipal Electric Service Agreement, for example, to a provision which is on page five of that agreement, and has Section No. 3.3 which contains a provision for the sale of firm electric service by Otter Tail to the municipality under certain circumstances that we don't need to repeat or go into now.

[T. VII, 69] Calling your attention to that particular provision which I believe is fairly common to all of the other municipal electric service agreements, has there been any call for service under that and has there been a kilowatt hour of electric energy requested or sold under that provision of these agreements?

A. There has not been any sale or request for sale under the provisions of that section or similar sections in other contracts.

Q. Is this true, that this particular provision is a part of the package deal, as we referred to it this morning, between the three-party arrangement?

A. Yes.

Q. This morning you mentioned and I suggested putting aside for future consideration in questioning, the matter of impairment of credit of Otter Tail Power Company which might be got from this threat of erosion that you have been testifying about.

Returning to that subject matter, first, may I ask you as to your familiarity with the financial markets and institutions of the country and your familiarity with the credit of Otter Tail Power Company in relation to those markets. Would you briefly give us your background and experience in that area so we can understand what knowledge you have of that particular subject matter?

[T. VII, 70] A. From the time I started work with the Public Service Commission at Bismarck, North Dakota, in 1936, I have been involved with consideration of finance dockets of utility companies. So with my experience as a staff member of the Public Service Commission, I became acquainted with the financing needs and financing methods of utility companies in the upper Midwest.

Since joining Otter Tail Power Company, I have been continuously involved in the financing efforts of that company, and for most of the years of my association with the company until very recently, I have been designated as the chief financial officer of the company. It has been incumbent upon me to become and to remain conversant with market conditions, and by market, I am speaking of the financial market, to know what might be expected in the way of costs insofar as money costs are concerned of the power companies, so that we may properly incorporate such costs into future planning and into the budgets.

It has been incumbent upon me to make presentations before the Federal Power Commission and to be involved in presentations with counsel before the Securities and Exchange Commission, and I have maintained a continuing relationship with the investment bankers in the Chicago and New York area so I would have a working relationship at the times and occasions when Otter Tail came to the market.

[T. VII, 71] As a very important part of the relationship with the financial fraternity, I regularly visit the three main rating agencies, namely, Moodys, Standard and Poor's and Fitches, with the continuing hope and desire of raising the ratings that these agencies have placed upon Otter Tail's securities, especially Otter Tail's bonds.

Q. Does this experience then give you general familiarity with the financial markets of the country and the sources of financing?

A. I believe it does.

Q. Then coming to this subject matter with particular reference to Otter Tail Power Company, does this, in your opinion, this threat of erosion that you speak of, have an effect upon the credit of the company?

A. In my opinion, the potentiality of this case now being heard has already had a pronounced effect upon the credit rating of Otter Tail Power Company inasmuch as it is the inevitable question that is raised by any of the analysts that I visit or that come to Fergus Falls to visit Otter Tail Power Company, and it was a question asked of me at a recent appearance before the New York Society of Security Analysts:

"Mr. Hartl, what will be the effect on Otter Tail Power Company if you do not prevail in this antitrust proceeding?"

Q. In your judgment as an expert, as I guess you are in this field, what are the reasons for any effect upon the [T. VII, 72] credit of the company?

A. The fundamental factor that affects the price that is paid for any security is its potential earning ability, not only now but in the future. If any investment banker or investment committee can foresee some erosion of that earning capability in the future, he will discount his bid accordingly, if he will make a bid at all on any security, and I believe that I can document this by an unenviable statistic that I repeat to the Court, that Otter Tail Power Company on May 3rd of this year went into the money market to sell 16,000,000 in principal amount of first mortgage bonds and it has the unenviable record in this period of months having paid the top interest rate of any electric utility so far this year, and at that, the reception was described as poor by the market reporters.

Q. To tie that in with the threat of erosion, in your opinion, has that been a factor in this type of reception of the current financing of the company?

A. I know it has been a factor because the syndicate leaders that were most concerned about the threat of erosion of Otter Tail facilities are the people that put in a bid considerably higher than the winning syndicate.

Q. What are the facts with reference to the need for Otter Tail Power Company to again go in the money markets of the country in the immediate foreseeable future?

[T. VII, 73] A. During the next five years, Otter Tail Power Company has to raise in new investment capital, an amount equal to what it has raised in the first 60 years of its existence in order to meet the simple needs of the expansion of our company as we can visualize that necessary expansion right now, and a five-year term in the utility business is very short term. It is quite definite. During the five years '71 to '75, we will have to raise approximately $73,000,000 in new capital.

Q. I presume that's a projection that has been studied out as part of the regular course of business of the company?

A. Yes, it has been done and it is part of the normal budgetary procedures of the company.

Q. Is that based on what would normally be expected in the way of growth of the company during that period?

A. I am bothered somewhat by what you speak of as normally, but it is based on the growth that we expect during the next five years and the expansion necessary to meet that growth.

Q. By growth, are you referring to geographical growth or growth in use or what?

A. There is no available geographic growth to Otter Tail Power Company. We have, to all intents and purposes, ex-

hausted our ability to expand geographically. There are no new worlds to conquer. It is the added usage of electric [T. VII, 74] energy by our present customers, it is a vertical growth that we must depend upon for growth in the case of Otter Tail Power Company.

Q. Coming, then, to another subject matter which has been mentioned in this case by other witnesses, it's generally referred to as litigation, and there has been some testimony in the case as to some cases in the courts relating to Elbow Lake, Aurora and Colman.

I see by the diagram furnished the court by counsel for the plaintiff, Hankinson is also mentioned in that area, too.

Q. Now, generally, with reference to such items of litigation as Otter Tail may have had an interest in in this respect, I will ask you to advise the Court as to the approach, solution and consideration of items of litigation and what policy, if any, there is on the part of the company in that regard.

A. There is, and I can state this categorically, no established policy of Otter Tail Power Company insofar as litigation involving any of these municipal proceedings is concerned. Each instance is analyzed on its own merits, and after consultation with counsel, a determination is made as to whether there is any merit to litigation of some aspect of a case, to the end that there would be a benefit from adjudication of that issue to Otter Tail Power Company, or in [T. VII, 75] instances, to the industry; and only if there is a determination that there is merit to the proceeding, is counsel instructed to begin litigation.

The decision as to whether there will be litigation is mine, and mine alone, and it is made only after consultation with my associates and with counsel. It is not made lightly, because,

in my opinion, a dollar paid for legal fees is as expensive as one paid for any other service that we pay.

Q. Does the question of the damage or destruction of Otter Tail's business or properties that is potential from the establishment of a new municipal system and the legality of the proceedings that will have that result, are they a factor in considering the advisability or merits of any possible litigation?

A. They are definitely a factor because in each of these communities that have been mentioned, Otter Tail is a substantial property owner and a taxpayer and has an interest in what that community does for the well-being of its own interests and the interests of its customers in that community. Therefore, that is factored into the decision.

Q. And is the factor that if the company is to be damaged or put out of business, that the proceedings that will result in that are done in a legal fashion, a part of the consideration that is taken into consideration?

A. If they are going to take our property, we wish to [T. VII, 76] make certain that it is done in accordance with law and not in any other manner.

Q. And specifically, are those factors ones that were taken into consideration in connection with the case of Elbow Lake that was referred to in the testimony?

A. They were taken into consideration in all aspects of the Elbow Lake case.

Q. If I asked you the same question directed towards Colman, South Dakota, what would your answer be?

A. It would be the same in Colman and in any other of these municipal agitation cases that you might have occasion to inquire about.

Q. I am inquiring about Colman. Aurora would be another similar situation?

A. Right.

Q. I mentioned a minute ago that on the diagram counsel for the plaintiff has furnished us with a copy of, Hankinson seems to be included in the column of litigation. I will ask you some questions about that situation.

Was Otter Tail the plaintiff in any case involving Hankinson, North Dakota?

A. No, not to my knowledge.

Q. Is Otter Tail a defendant in several cases brought by the City of Hankinson?

A. Yes.

[T. VII, 77] Q. Will you refer to them, generally speaking?

A. There was a proceeding before the Public Service Commission.

Q. Who was the complainant?

A. To the best of my recollection, the City of Hankinson.

Q. And against Otter Tail Power Company?

A. Yes.

[T. VII, 78] Q. And was there a proceeding also in which Hankinson was the plaintiff and Otter Tail was the defendant before the Federal Power Commission?

A. Yes.

Q. And was there also a case in which Hankinson was the plaintiff and Otter Tail Power Company was the defendant in the Federal District Court of North Dakota involving a claimed violation of the Sherman Act?

A. Yes.

Q. And I believe your deposition which, of course, is before the Court, but for purpose of present reference to litigation

at Hankinson, refers to a taxpayer's suit that was brought in the Hankinson situation. Are you generally familiar with the area that was testified to about that?

A. Yes.

Q. In that suit were the members of the taxpayer's association at Hankinson the plaintiffs in the case?

A. Yes, they were.

Q. And the city officials were the defendants in the case?

A. Right.

Q. Now, coming to another subject matter, you have prepared, and there has been furnished to counsel and filed with the Court pursuant to pretrial orders two exhibits, I believe?

[T. VII, 79] A. Yes.

Mr. Field: I would like to state for the record while we are on the subject of litigation that as I have indicated previously when we objected to the receipt in evidence of what the plaintiff offered in regard to litigation, that we considered that what they offered to be fragmentary and not complete.

Now, we have quite a number of documents which we think should be offered in the record if any of it is to be received, which partially it has, to complete the record in that regard without waiving our objection to the general subject matter of litigation, this being an antitrust matter. We can mark them during some recess so we don't take the time now, but I thought I would mention it at this time. Copies have already been in the hands of the plaintiff in connection with attempts as stipulating at which we previously went through.

Mr. Anderson: We don't have any particular objection to the receipt of any of this. I would only like to observe that it was our opinion that copies of the Complaint and the Answer and the opinions of the various Courts reflected, we thought in substance what each side said, and pretty much put the argu-

ments in a nutshell, and we thought that sufficed to give the Court an appreciation of what was involved and what each side said; but if [T. VII, 80] Mr. Field would like to put in some briefs to more fully define the Otter Tail position we have no objection to that.

Mr. Field: It would be the position of both sides. These cases were in the Supreme Court and there are briefs on both sides and so forth that we think if the merits or demerits of these cases are going to be gone into we should have a full record.

The Court: Was that North Dakota antitrust case dismissed?

Mr. Field: Yes, it was.

The Court: There was a change of complexion in the council or something, was that it?

Mr. Field: Yes.

The Court: Hankinson?

Mr. Field: That's true.

The Court: That's fine with me if you mark them then during some recess, we will be glad to receive them.

Mr. Field: Yes. Now may we have marked as an exhibit a four-page document which has the general heading on the first page, "Basic Data for Otter Tail Power Company for 1970," being one of the exhibits previously exchanged.

(Defendant's Exhibit 40 marked for identification.)

[T. VII, 81] Mr. Field: I believe the foundation for this exhibit as well as the others has been admitted if I am not mistaken by our pretrial procedures. I am going to ask the witness to explain it, but if that's true, I will offer it first and then we will talk about it.

(Defendant's Exhibit 40 offered in evidence.)

Mr. Anderson: That's right. Fine.

The Court: Exhibit 40 may be received.

(Defendant's Exhibit 40 received in evidence.)

By Mr. Field:

Q. Now, in general, Mr. Hartl, I would like you to explain what's presented by Exhibit 40 and if we can take the first page first and if you can tell us what is shown there and explain just briefly the various columns?

A. The first page of Exhibit 40 as the title indicates, is a presentation of basic data for Otter Tail Power Company attempting on this first page to develop an average rate base for the entire company and then for the major functions of an electric utility, production, transmission and distribution, with a fourth column added in here that is labeled Energy Portion.

Q. I notice the first column, just by way of [T. VII, 82] explanation, the first column has a title of, "Total company average." What does the average signify?

A. Average signifies that it is a mathematical average of the beginning of the year and the end of the year account. In other words, in a continually expanding situation as are most utilities, there is a reluctance to accept a rate base as of the end of the year because you had not used the investment all year; and in the same way the utility contends that a beginning of the rate base is unfair. So in an attempt to establish a norm acceptable to all, the average rate base concept is used in this study.

Q. Is that a concept that is used in regulatory body presentations too?

A. It is used extensively by regulatory bodies.

Q. And I presume the figures come from the basic books and records of the company?

A. The figures are from the books and records of the company, and I wish to further call attention to the Court to

the fact that the figures represented here apply only to the electric utility. Otter Tail Power Company does have some other properties in other fields, but they are very carefully kept out of this presentation.

Q. Now, going from the column, "Total company average," to the right, there are four columns that divides the, I guess the figures in the first column between functions, if [T. VII, 83] I understand this correctly?

A. That is correct. The last four columns attempt to take the total company average and spread it, allocate it, rather, among the four functions. And I believe it is self-explanatory.

Obviously, all of the production department under the Federal Power Commission system of accounts would belong in the production portion. Then there is added to that an allocation of general plant, the largest portion of which would be the general office at Fergus Falls which has room and facilities used by the production department, and in the same way construction in progress was analyzed to see what projects under construction apply to the production function and had not yet been transferred out of the work order into the regular accounts.

Q. Perhaps I could suggest that unless interest is shown in an explanation for any particular item or allocation we could summarize it fairly easily and then back up if there is some question about any item.

Let me ask you this. I notice there are footnotes on page one, four, five, six and so forth. What do they refer to?

A. Those footnotes refer to page four of the exhibit which gives the basis for an allocation of that particular account or amount.

[T. VII, 84] Q. And you are prepared to discuss the footnotes and methods of allocation if any interest is shown in any of those items?

A. That is correct.

Mr. Anderson: Your Honor, would it be proper for me to intrude just to ask Mr. Hartl to explain what the energy portion means?

Mr. Field: I will ask him that.

By Mr. Field:

Q. Interest has been shown in the energy portion which is the next to the last column. Would you explain what's shown there?

A. The energy portion purports to demonstrate that part of the overall company property that is directly and specifically related to the production of kilowatt hours for the energy component of the sale of electricity as distinguished from physical plant that goes to the—well, strike that. Let me back up.

The energy portion would be that part that is directly involved in the producing of the energy not allocable specifically to other functions.

Q. Perhaps we could illustrate that by taking an item or two in the energy portion. The first one is opposite the line of, "General plant." Is this some general plant investment that is related to the production of energy? [T. VII, 85] Perhaps you could explain that?

A. Yes, there is. There would be two major components. One would be the general office building and the fixtures within it, where the people that are concerned with the daily production of energy have their place and they use some of the facilities.

The next large component of that would be our computer setup that we have in our company that monitors and dispatches the operating plants that produce energy. So there is

an allocation of that capital expenditure. Those are types of allocations that are made to the energy portion.

Q. The next item is construction in progress, which is an item of interest to accountants and executives and perplexing to most lawyers, including myself.

Would you comment on that item?

A. Well, first of all, construction in progress is the account that records expenditures that have been made for expansion of plant within the company, but either that construction is not yet complete or construction is complete but the balance in those accounts has not yet been transferred to the permanent account, shall I say that the accounting is not complete detailing it into the units of property, and things of that nature. Consequently, for the purposes of this study, an analysis was made of construction in progress [T. VII, 86] and a specific determination was made in each instance that these dollars related to what I previously described as the energy portion of this particular study.

Q. Then there is an allocation, taking it in order, of general plant to the energy portion. Will you comment on that?

A. I believe I already have. There would be allocation of general office and there would be allocation of the computer center.

Q. I guess my question wasn't very intelligent. We are getting to depreciation reserve, and that, of course, would follow?

A. That simply follows the property. That is the depreciation reserve that would be related to the electric plant above it, and in the determination of a rate base, that normally is a subtraction from your gross plant to get net plant.

Q. Having aproached the item of construction in progress with temerity, I propose to skip over accumulated investment,

tax credit and accumulated deferred income taxes. Counsel can inquire about that if he wishes.

Before I get down to the bottom of the sheet, I will ask this question with reference to the items we have been discussing.

Take the first item we discussed, general plant [T. VII, 87] allocation, it starts out with $8,500,000-odd and allocated across the page, and as a part of the energy portion that we asked about, the footnote five, it occurs at the beginning of the allocation across the page, that footnote applies to the entire line, doesn't it, Mr. Hartl?

A. That is correct.

Q. And in general, is this true of the footnotes, that if they appear to the left of the item, as it does here, that it applies to the whole line across the page?

A. That is correct, and so that would apply to footnotes five, six, seven and nine.

Q. On the other hand, by way of explanation of the key to the application of the footnotes, I notice footnote four is after two figures. Does that indicate something different?

A. It applies just to that figure that precedes it.

Q. So footnote five would aid in the understanding of the allocation of general plant, the energy portion as well as the other functions, then?

A. Yes.

Q. And the same with footnote six?

A. Yes.

Q. We get down towards the bottom of the page fuel stocks seems to be an item, and footnote two, I guess footnote two refers to average of monthly balance. Perhaps [T. VII, 88] counsel isn't interested in that explanation.

The fuel stocks themselves are allocated to the energy portion and perhaps needs some explanation.

A. There is no purpose in the fuel stocks other than actually converting them from one type of energy to another.

Q. And I guess cash working capital is probably something that doesn't need comment on unless counsel wants it.

Mr. Field: Have we responded fairly well to the suggestion except for your general cross-examination?

Mr. Anderson: Yes, I think so. I still don't have the slightest idea why there is a separate column for the energy portion, but I can cover that later.

Mr. Field: Perhaps as we go through the pages the reason for that may become more apparent, Mr. Anderson.

By Mr. Field:

Q. Let's turn to page two.

A. Before we leave page one, Mr. Field, might I comment on what the end result is?

Q. Yes, I wish you would.

A. That the final line on page one of Exhibit 40 is labeled rate base, average, or an average rate base, and for the company and for each of the four areas of [T. VII, 89] allocation, we indicate a rate base or a fixed investment upon which the company expects to earn a return, and in turn, an amount upon which it must bear the fixed charges that will accrue year after year.

Q. I gather, then, that the average rate base total for the electric department is a figure of $93,853,616?

A. Right.

Q. Divided between the functions along that line?

A. Yes. Then, page two of Exhibit 40 in a similar fashion takes the total company expenses for the electric department and the revenues, and the first figure is a revenue figure, and

it then takes the expenses of the electric department by classification and proceeds to allocate those, again, into the same four areas as the property was allocated, to the end that we arrive at a net operating income for the electric department of $6,372,515.

Q. And the footnotes are of similar nature and relationship, and so forth, that you explained on page one, are they?

A. That is correct.

Q. Spending just a little time on the energy portion there, in response to counsel's thought on page one, perhaps this is not in need of explanation, but take the first figure in the energy portion column, $7,962,157, and I guess footnote 10 explains that figure, doesn't it?

[T. VII, 90] A. Yes, it does.

Q. Well, just for example, what is the explanation?

A. It includes the amounts that the company expended during the year for fuel, for labor in the major plants of the company and for purchase power.

Q. The next allocation to the energy portion of expenses under the line of administrative and general, I suppose that is the same explanation of allocation as is true on page one?

A. That is correct, and the explanation in footnote five as to what the basis for such allocation was.

Q. Well, I guess, unless there is a question or interest shown on any particular item, we will go to page three.

A. Page three is, first of all, a recopying of the rate base from page one, and then a recopying of the total return and expenses as shown on the bottom line of page two.

Q. That is an accumulation by these four subdivisions of material previously developed down to that point?

A. Yes.

Q. Then if you would go on from that point and describe generally page three.

A. What page three develops and shows, the total return and expense figure then was adjusted by deducting from the revenue of the electric department, and in turn, [T. VII, 91] allocated to each of the four categories indicated, the revenues derived from sales other than the sales of kilowatt hours or power pool sales, wheeling revenues, transmission firming, and other electric revenue, to arrive at a figure that I describe as return and expense adjusted of $31,089,859.

Q. This page three has part of its heading—revenue allocations by functions, 1970, and unit costs at the municipal gate. Are these adjustments related to getting the figures in relation to the municipal gate?

A. I think they could be properly described that way.

Q. Perhaps we had better ask what the term municipal gate means in this exhibit and generally.

A. In this exhibit, at the municipal gate is intended to mean at that position in a utility system where the production and transmission functions have been completed and the energy is available for use in the distribution system of either the same utility or some other type of electric supplier.

Q. Well, then, going on down the page by way of explanation, we have a line which is labeled quantities at production level, and there is a production column that has the figure 231,000 kw, which is kilowatts, I believe, and the energy portion of some 1,268,000,000-odd kwh, kilowatt hours. That is perhaps self-explanatory, but [T. VII, 92] could you comment on what those figures represent?

A. The 231,000 kilowatts is the annual peak during 1970 for Otter Tail Power Company's customers. It is the system peak involving our own customers, and consequently, in deter-

mining those costs, if you wished to make a determination per kilowatt of what those costs would be, you must take your return and expense adjusted and divide it by the number of kilowatts at your season's peak, which was done there, producing a cost per unit at the production level of $26.86 a kilowatt at the production level.

Q. Staying with that column for a moment, the next line is labeled quantities at transmission level. Is there some adjustment to arrive at that, and would you tell us what it is?

A. Yes. You never completely transmit all of the energy you generate. It is a characteristic of a utility system that at least with today's technology there is some resistance in that system, so in essence, some of the energy you generate is used up simply passing through the system and this is labeled as a transmission line loss. Consequently, a five percent adjustment was made for line loss at the transmission level, which produced a quantity at the transmission level of 219,450 kilowatts.

[T. VII, 93] Q. Does that then furnish a basis for computing the cost per unit of the production portion at the municipal gate?

A. That cost per unit at the municipal gate, that is right.

Q. And is that the figure shown here $28.20 per kilowatt?

A. Per kilowatt for the production portion. And in order to get it to the municipal gate you likewise have to involve the transmission function of the company with its related costs which computed in a similar manner amounted to $21.71 a kilowatt for a total production and transmission demand cost at the municipal gate of $49.99.

Q. You used the term demand cost. Perhaps we should have some explanation of the meaning of that term in this context?

A. Well, primarily I use the term because that's the way I have on this sheet three labeled it production and transmission portions. You will notice that they are so labeled at the top, toward the top of the page, but fundamentally what I am attempting to demonstrate here is that whether any energy was taken over the system or not, these are costs inherent to having the physical facilities there ready to produce or deliver energy to the municipal gate.

Q. These are what are called fixed or imbedded capital costs, or don't I use the right term?

[T. VII, 94] A. That is another way, a bit of accounting terminology that describes costs of this type.

Mr. Anderson: I wonder if I could just intrude for a moment to inquire just what relevancy this page 3 has to the general thrust of what we are doing? Pages 1 and 2 which are broadly descriptive of the company's operations and so forth, I can understand those two, but I fail to see why we need to plunge so deeply into cost accounting as we have here on page 3. I fail to see how all of this connects up with the thrust of the case.

Mr. Field: Could I perhaps finish page 3 first before answering that question.

By Mr. Field:

Q. Then we start out, do we, Mr. Hartl, with Otter Tail's costs at the municipal gate for the investment and production and transmission facilities, whether there is a kilowatt hour sold or not of $49.99 per kilowatt?

A. That is the purport of this portion of Exhibit 40.

Q. Well, then go to the energy portion. What is developed there on page 3?

A. At the energy portion is developed the cost per kilowatt hour delivered to the municipal gate. Now, see, that is

distinguished from the first two columns because here we have actual energy, units of energy being delivered to the municipal gate, and the costs will vary in virtually [T. VII, 95] direct proportion with the number of units that are taken and there are no costs here unless there are some units of energy taken.

Q. In other words, when the production portion, the transmission portion begin to be used by the consumption of fuel, labor, et cetera, then there are costs, incremental costs, you might say, for the production of energy?

A. It, I believe, could be correctly described in that manner.

Q. And without going through the detail of it, what does it develop, the cost per kilowatt hour to be when it does produce kilowatt hours?

A. The energy portion of Otter Tail's costs and return develop a figure of .632 cents, or to put it another way, 6 and three-tenths mills.

Q. Now, at the bottom of the page, the production and transmission portion and the energy portion are restated, and then there is a computation such as I believe Mr. Trommershausen made in connection with some other levels of rates, assuming a 50 percent load factor as to what that meant in terms of cost at the municipal gate per kilowatt hour. What does it show in that respect?

A. It shows calculated on a 50 percent load factor basis that Otter Tail's costs at a municipal gate are 17.7 tenths mills per kwh.

[T. VII, 96] Q. And by comparison of those costs to the costs that have been appearing in this evidence, from furnishing of Bureau of Reclamation power as developed by other witnesses, how does it compare?

A. That the 17 and 7 tenths mills compares to the figure of 5 mills, the cost of Federal energy that has been mentioned in the course of these hearings.

Q. To the figure of 5 mills there were added some costs that perhaps should be taken into consideration in making the comparison such as the associated firming costs or interconnection facility costs and so forth?

A. Well, one would have to take a specific instance to see what that would be, but the 17.7 mills in most instances would tend to compare with maybe 7 and a half mills in some other situations served by the Bureau of Reclamation.

And therein, Mr. Field, is the answer to Mr. Anderson's query as to the purpose of this page 3. I have mentioned several times the difference in price level between a fully priced commodity such as an investor-owned utility would have to develop and underpriced Federal power which has been stated by other witnesses at 5 mills plus the other adders that you wish to use in any one particular situation as compared to what Otter Tail would have to charge in a similar situation.

The Court: Shall we recess for [T. VII, 97] about 10 minutes.

(Recess taken.)

Mr. Field: We now ask to have marked as an exhibit a document comprising five sheets which has been previously furnished to counsel. It's the one with the title, "Otter Tail Power Company Comparative Income Statements 1961 through 1970, actual and erosion study," is the heading.

(Defendant's Exhibit 41 marked for identification.)

Mr. Field: I believe, Counsel, the same situation is true as far as foundation is concerned as was true of the last exhibit so I will offer in evidence now.

(Defendant's Exhibit 41 offered in evidence.)

The Court: Absent objection Exhibit 41 may be received.

Mr. Anderson: No objection.

The Court: It may be received.

(Defendant's Exhibit 41 received in evidence.)

By Mr. Field:

Q. Referring then, Mr. Hartl, to Exhibit 41, would you tell us first generally what the scope and purpose of this [T. VII, 98] exhibit is?

A. The purpose of Exhibit 41 is an attempt on my part to put into mathematics the connotation of the term erosion that I have used on numerous occasions up to now in my testimony, that I have spoken of eroding the Otter Tail system; and by this exhibit I propose to demonstrate the mathematics of such erosion under certain given assumptions.

Q. Well, then, so let's have an explanation of the four corners of the study and the assumptions. Let's start out with page 1 and the first top half of page 1. What's shown there?

A. There is shown on the top half of page 1 and exhibit 41 a summary of the income statement of Otter Tail Power Company for each of those four years, each of those ten years, for the electric department. It is the actual result of operations for each of these years as will be found in other formal reports of Otter Tail Power Company, they are there because here is a fixed and known set of facts. There is no conjecture in this top half of the page. That is what did happen during these ten years.

Q. So we start out with actual, factual material shown by the actual operations of the company for ten years, is that true?

A. That is correct.

Q. Then in the bottom half of the page would you just [T. VII, 99] explain generally what is presented there?

A. I started with a basic assumption that an erosion of 5 percent of Otter Tail's retail customers would take place every year and my rationale for 5 percent is simply this. The

normal term for our franchises is a 20-year period. In other words, over the period of our franchises, or over a period of 20 years, all of the franchises of Otter Tail Power Company will have expired.

Q. Are they all of a 20-year basis?

A. No. Some of them are only 10 years. But I went at the most conservative method, took the conservative alternatives wherever there were such alternatives in the development of this study.

Q. Well, that's one of the basic assumptions for the model of presenting the results of an erosion study then, is it?

A. That is the basic assumption.

Q. Well, before we get into the details of the resulting study, generally what is done based upon that assumption in connection with the mathematics that appear from the actual operations of the company?

A. Based upon that assumption, I then take the average revenue per customer times the number of customers that were lost in that year and that produces an amount of revenue that was lost or eroded in that year, and that is the [T. VII, 100] reason for the difference in revenue between actual and the bottom half of the sheet.

Q. I suppose we better turn to sheet 5, Mr. Hartl, which has the heading, "Basic Assumptions for Erosion Study." There are some other assumptions besides the one you have mentioned listed there. Perhaps we should discuss those before we talk about the results of their application.

You already commented on the assumption that Otter Tail would suffer a 5 percent loss of customers per year. Could you take the other assumptions that are the basis for the study and read them and then comment on them in order? Perhaps we will interrupt you as you go along if we need to.

A. The next assumption is, "That Otter Tail can sell the lost distribution systems at cost less depreciation."

Q. Would you comment on the soundness or lack of it of that assumption?

A. The purpose of that assumption is to enable one to calculate new depreciation studies, maintenance studies and cost of operation studies plus providing another input for cash flow to the company.

Q. The study then is sophisticated enough to implement all those factors?

A. Pardon?

Q. Is the study sophisticated enough to implement all of those factors?

[T. VII, 101] A. Yes, it is. Yes, it is.

Q. Well, let me ask you this about this assumption. Is that in your opinion a conservative or otherwise assumption that the company could sell all of its lost distribution systems at cost less depreciation?

A. I would categorize that as being a sort of a midpoint assumption to make, that the extreme of that would be reproduction costs that somebody might be willing to pay me as much as it would cost to reproduce the system. That would be the top limit.

The bottom limit would be strictly salvage value of the material less cost of removal, and so this is someplace in between there and would be on the conservative side, but I could make an even more conservative assumption.

[T. VII, 102] Let's pass on, then, to the next basic assumption. You read it, and then comment on it.

A. "That depreciation, taxes, interest on short-term borrowing, and expenses for operation and maintenance will be decreased proportionately." In other words, as our number of

customers decreases, as we decrease our investment in distribution plant, that the related expenses likewise will be decreased in proportion.

Q. Going to the next basic assumption, then, unless there is further comment.

A. That assumption is "That Otter Tail will wheel to the towns lost at existing rates."

Q. What is the rationale of that assumption?

A. The rationale of that assumption is that rather than no revenue whatsoever, there is the alternative of obtaining a minimal amount of revenue by providing this type of service to this distribution system.

Q. Is it also related to what the plaintiff requests in the way to relief in this case?

A. That is one of the items in the prayer for relief in this proceedings. In my opinion, this assumption is quite conservative inasmuch as some of our communities are on or immediately adjacent to lines of other suppliers. So as to who the municipality would choose as its wheeling agent is a matter, obviously unknown to me.

[T. VII, 103] Q. I suppose, generally speaking, the erosion study is addressed to the situation the company might be faced with if this relief is secured in this case? That is one of the basic purposes of presenting the study, is it not?

A. Yes.

Q. Go to the next basic assumption, please.

A. "That Otter Tail will be able to make increased pool sales," and this assumption is based on an analysis of pool transactions and prospective pool transactions in the future would lead me to indicate that any capacity that I may have made available by losing retail customers could be sold within the pool, within the pool structure to some other pool member.

Q. So the potential of revenue from that source has been factored in?

A. Yes, it has. The next assumption is "That Otter Tail will be able to retain the ability to borrow at the prime interest rate for short-term borrowing," and this is purely and simply an assumption made on my part, and the more I get to know bankers, the less confidence I have in that assumption as we get into the years.

Q. And what about the conservatism of the assumption, having in mind that erosion is going on?

A. That is giving the study the full benefit of a [T. VII, 104] conservative assumption, as full a benefit as you possibly could give it.

Q. In your judgment, would the company be able to retain its ability to borrow at the prime interest rate under the basic assumptions of this model of erosion?

A. I do not believe it could for the entire term. It might start out that way.

Q. And the last assumption on the page, if you will refer to that, please.

A. "That Otter Tail will maintain a dividend payment policy of 70 percent of income available for common," and that assumption is made strictly for the calculation of cash flow. So you would know how much of your cash you would have internally available for expansion or operation as distinguished from what you were paying your security holders. It does not mean that we would be paying the same amount, because the document will demonstrate there is a continually lessened amount available for common. So our dividends would be decreasing each year, even if the percentage available would be the same percentage.

Q. Then this study, is this true, we start out with the actual figures for this ten-year period with the adjustments based

upon the assumptions for the model, does it follow that the built-in growth of the company that will occur during this ten years is retained as part of this [T. VII, 105] study?

A. That is correct. Even if we are losing five percent of our customers every year, you will notice that our revenue at the end of the ten-year period is still greater than the revenue with which we started. That is just a mathematical phenomenon produced by the fact that there is a vertical growth that continues among the existing customers on our system.

Q. What is the rate of that growth, generally speaking?

A. Generally, that rate is seven percent a year and it compounds on an annual basis.

Q. What is the seven percent related to, kilowatt hours or dollars or what?

A. The seven percent tends to be related to kilowatt hours, not the dollars, because there are so many other factors that could influence the dollars, like rate increases, rate decreases, items of that nature. You speak of load growth.

Q. So, then, actually, the model for this study takes the actual figures and in all of its different interrelationships raised by these basic assumptions, factors in and computes the results to the actual figures during the ten-year period?

A. That is correct.

[T. VII, 106] Q. Just as an example of some of the intricacies of such a study, you spoke of cash flow. Could you just tell us how that is affected by these various assumptions, to show the carefulness of the study model?

A. Yes. If we can continue to borrow at the prime rate, I calculate the cost of my short-term borrowings as of today at five and a half percent, on ten million dollars and it's relatively normal for Otter Tail to be in the banks for that amount, and right today it doesn't happen to be, that, as distinguished

from six and a half percent, or some such figure, if I no longer command the prime rate, the difference is that one percent on ten million dollars per year, and that will affect not only my income, it will affect the amount of cash that I retain within the company.

Q. And just as another example of the implementation of these various factors, is the need for short-term borrowing, which presumably is related to cash flow, affected in this study by the assumed cash flow from the sale of distribution systems?

A. Yes, that was factored in and I also mentioned the fact that we paid X percentage of our available earnings as common dividends, was likewise factored. All in all, this is one of the more sophisticated studies that I have ever attempted.

Q. Now, we have talked about sheet one and sheet five. [T. VII, 107] Let's turn to sheet two just to give the Court and counsel the benefit of an overall explanation of what are on those sheets.

A. Sheet two, first, in a summary and condensed fashion, compares the actual and the erosion study figures for each year and they are put there for convenience in matching any one year.

Q. Are they the same figures?

A. They are the same figures that are contained in greater detail on page one.

Q. That is just another method of presentation of the comparative situation?

A. Yes.

Q. Sheet three tells us what?

A. Sheet three is greater detail of all of the revenues and expenses of Otter Tail Power Company during the ten-year period. These, again, are the actual figures fundamentally set

out here by FPC account classifications and in greater detail than on sheet one or sheet two.

Q. In other words, if one is interested in the detailed build-up of the figures on the top half of sheet one, you would go to sheet three to find it?

A. That is the entire reason, so at one place you have the background for making such further calculations and studies as you may desire.

[T. VII, 108] Q. The end result of the figures or the totalization of the figures are the same as the top half of sheet one?

A. Correct.

Q. Sheet four, is that similarly—

A. Sheet four in a similar detailed fashion puts out greater information involving the erosion study.

Q. In other words, if one wants to find some greater detail for the total figures that appear on the bottom half of sheet one, it will be found on sheet four?

A. Correct.

Q. We could spend a great deal of time in going into the details of this study. Let me ask you this general question. I presume a model for a study of this kind mathematically could be presented at any level of assumed erosion, could it not?

A. Yes, it could.

Q. That is, an erosion study could be based on a four percent or six percent or any other percent of assumed erosion?

A. Correct, and I would be the first to concede that it is highly unlikely that even five percent erosion would take place every year, for the very simple reason that our communities are not the same size, and if one of the larger communities would become involved in this, this would begin to get a stair-step characteristic to the curve [T. VII, 109] that would describe it.

Q. Is a model such as this, in your opinion, a proper and convenient way of demonstrating mathematically the results of erosion?

A. Yes, it is.

Q. Before we leave that subject matter, while, as you say, you appreciate a model could be built on any assumption of erosion, I will ask you whether or not, in your opinion, the assumption of five percent overall on the average is a reasonable one for such a study?

A. Yes, it is, because of the basic rationale of the five percent in the first place.

Q. And having in consideration, and I intended to incorporate in my question the threat of erosion that is potential in the situation we have been describing.

A. Yes.

Q. Now, if you could help us in understanding the results of this study of this model and looking to the line that I guess a good many shareholders as well as analysts and other people look at in trying to understand in a nutshell how a company is doing, the earnings per share of common stock, and you compare the actual results of the ten years with the results shown by the erosion study expressed in earnings per share of common.

A. The actual situation for the years in question, [T. VII, 110] the earnings per common share increased from $1.16 to $1.88, and it is one of the major factors in an analysts interpretation of a company, that they require that there be a record of continued increased earnings per share if it is to be considered in the most favorable light. So to that point for the past ten years of this study, Otter Tail did so perform. With some intermediate fluctuations there was a consistent growth from '61 to '70. But if you apply to that record only the modest

erosion of five percent a year, you by the end of the ten-year period, have practically eliminated any earning capacity of the company.

[T. VII, 111] Q. Illustrated by what figures, Mr. Hartl?

A. By the fact that the earnings per common share would go from $1.02 in 1961 to 2 cents in 1970 and that would be an intolerable situation that with an earnings capacity such as that, Otter Tail would no longer be viable. We could not command money in the money market considering the competition that we, you have for dollars in the United States.

Q. When you say you could not command access to additional capital, are you referring to at a certain price or not at all or do you mean a situation?

A. I am considering the ability to command capital at any price or, to put it in a modern analogy, we would be in exactly the same situation that Penn Central is right now. Nobody wants to lend them a dime.

Q. And in your opinion would the results of erosion as shown by this study model have that effect upon Otter Tail?

A. I have absolutely no doubt whatsoever that it would have that effect.

Q. Another question that isn't portrayed in the exhibit itself, but if the erosion study was continued on into the future, what would be your judgment as to the effect upon the earnings per share? Would they progress in geometrical proportion to what is shown in the first ten years or increase in propensity or what?

A. I never projected the study beyond it because we [T. VII, 112] have now gone far enough to demonstrate to my satisfaction that some place around this period Otter Tail would go out of existence, therefore any further projection would just be an exercise in futility.

Q. Well, I appreciate that answer, and I guess that's a practical answer to the question. From a mathematical standpoint if I can bother you with that assumption, as the erosion becomes more and more complete, would the effect be snowballed in effect?

A. This, as is already demonstrated by this ten-year period, the erosion effect tends to accelerate as time progresses and mathematically the principles of mathematics and statistics should support the theory that that acceleration would continue on into the future and the bottom line results would be deficits of an increasing amount.

Q. Well, one more question, Mr. Hartl, on this erosion study exhibit. I will ask you if the general purpose of this exhibit is to illustrate what you have been talking about by the effect of erosion with some actual computation rather than just generalizations?

A. That is what I described as the purpose of this exhibit when we started our explanation, that I used the term erosion, others have used the term erosion, here is a mathematical demonstration of erosion.

Mr. Field: May I have a minute, [T. VII, 113] Your Honor, I think we are close to through with Mr. Hartl.

The Court: All right.

By Mr. Field:

Q. My attention has been called to one point, Mr. Hartl, that as of this time is Otter Tail Power Company involved in a plan with other utilities for the construction of a new generating station?

A. Yes, it is.

Q. Have plans progressed to the point where its an established plan of action that can't be reversed?

A. Plans have progressed to the point where firm commitments for the engineering design of the unit which is known as the Big Stone unit in Northeastern South Dakota, contracts have been let for the purchase of the energy conversion unit or boiler and contracts and the concomitant commitments have been made for the purchase of the turbo generator unit. Those last two being the large material components of a power plant.

Q. Could you give us the capacity rating of this new plant?

A. The proposed capacity of the plant will be slightly in excess of 400,000 kilowatts.

Q. And is that a joint construction project with other companies, and if so what other companies are involved?

A. It is the first jointly owned plant to be built [T. VII, 114] in the upper midwest and is a joint effort not only of our company, combined with us are Northwestern Public Service at Huron, South Dakota, and Montana-Dakota Utilities at Bismarck, North Dakota.

Q. And what percent, if that's the proper way to put it, interest will Otter Tail have in the ownership of that joint facility?

A. Otter Tail will have a 47 and one-half percent interest in the facility. We are the major owner, major factor in the facility. We are the project manager for the construction and operation of the project.

Q. Is that project and its attendant needs for capital a factor in the financing program that you say you are faced with or the company is faced with in the next few years?

A. It is the largest component of construction costs for the next five years. The total cost of this project is expected to be something in excess of 100 million dollars.

Q. So those commitments have gone so far you are locked in with that project, is that correct?

A. That is correct. Whether something happened to delay or cancel the project right now there still is serious financial responsibility attendant on all three parties because of commitments already made.

Q. Just one more question in that area. In going back ten years which is the other end of this study that you have [T. VII, 115] presented in Exhibit 41, was there a similar situation, although in lesser amounts and lesser capacity, which was in the construction stage at that time?

A. There was a similar situation on a smaller scale that I described as our Hoot Lake unit number 3 which is now the present largest generating unit on the Otter Tail system located at Fergus Falls. It was then in the concept and initial construction stage.

Q. I guess the general, one of the purpose of these questions about the plans for additional generation is this: If you knew erosion was going to take place, you wouldn't need as much generation and so forth. The plans for the Hoot Lake unit, the beginning of the study were established, were they?

A. Yes.

Q. And planned for. And at the end of the stage you have got your new unit you have described. Are those type of plans necessary and proper in providing for the future?

A. They are very necessary, and as previous witnesses have indicated, there is a great need for long-range planning and continued planning in the utility industry to the point where five years is now considered short-range planning and one must go further.

And speaking to I had known there would be erosion would you have made some of the commitments that you have now? [T. VII, 116] One of the bits of advice that I have followed throughout my business career and I pass on to my associates

in Otter Tail Power Company is assume that you are going to be in business and take care of your customers accordingly, and only when you find out you are not going to be in business do you make major adjustments in those plans.

So right now I am assuming I will be in business and need this plant in 1975.

Q. Is that when it's scheduled to go on the line?

A. In May of 1975.

Mr. Field: May I confer with Mr. Hartl just a minute?

The Court: Yes.

Mr. Field: That completes the direct examination of Mr. Hartl.

Mr. Anderson: If I could just take a few moments, Your Honor.

The Court: Sure.

CROSS-EXAMINATION

By Mr. Anderson:

Q. Mr. Hartl, I would like to show you GX-21 which is the emergency interchange agreement between Otter Tail and the City of Willmar municipal utilities commission. In general, Mr. Hartl, isn't the arrangement between Otter Tail and the City of Willmar as reflected in GX-21 roughly [T. VII, 117] equivalent to what the town of Elbow Lake was seeking from Otter Tail Power Company?

The Court: Mr. Reporter, will you read the question again, I was inattentive.

(The question was read.)

The Witness: I do not believe that that assumption is even close to the truth.

By Mr. Anderson:

Q. If you would explain that, sir, I would appreciate it?

A. GX-21 is essentially an interconnection between the parties for emergency service whereas what Elbow Lake is seeking, in my opinion, is a firm source of underpriced energy.

Q. Well, as a point of fact, as I understand phase 1 of the FPC proceeding, they were asking specifically for interconnection for emergency service, isn't that true?

A. That's what they were asking for.

Q. And Otter Tail, I take it, was not willing to do that voluntarily?

A. That is right.

Q. Would you explain for us the difference between Otter Tail's attitude vis-a-vis Elbow Lake and its request for emergency interconnection service and Otter Tail's attitude towards the City of Willmar?

[T. VII, 118] A. I think that the distinction can quite easily be made that there in the case of GX-21 there was no existing retailing customer of Otter Tail Power Company that was involved and there was no lending of our own facilities to help somebody erode the Otter Tail system.

[T. VII, 119] Q. There was no existing retail customer in Elbow Lake, either, was there? They set up a municipal system and they asked you to interconnect and give them emergency service. I don't see the difference between the two?

A. Well, you may not see the difference, but to someone who has realized that Elbow Lake has been a retail customer of Otter Tail since 1913 to 1966, I still have a recognition of a community that was for that period of time a retail customer, and the request for this emergency interconnection was made even before they cut loose from Otter Tail.

Q. This morning in your direct testimony you made mention of several contracts which contained within them language which had the effect of preserving for Otter Tail its retail customers.

I show you GX-38, which is a contract between Otter Tail and RSR Cooperative bearing a date in January, 1968.

I ask you to look at it and tell us if that contract has any such provision in it?

A. I believe that what is designated as section 19 is a paragraph similar to what we were discussing in the contracts this morning.

Q. Would you read that?

A. "Except with the written consent of the other party, neither party hereto shall directly or indirectly sell or deliver the electric power and energy transmitted over any of [T. VII, 120] the transmission lines herein described to any wholesale or retail consumer to which the other party has established electric service on the date of the execution of this agreement or at any time hereafter and such service is still available."

Q. Now—

Mr. Field: I don't mean to intrude, but there is an amendment to that agreement which amends paragraph 19.

By Mr. Anderson:

Q. Look at the amended paragraph 19 and tell me whether that changes in any respect the basic thrust of the contract so far as customer protection is concerned?

Mr. Field: Your Honor, I object to counsel's description of these paragraphs.

The Court: I will try not to be misled.

Mr. Field: I object to his characterization.

The Witness: The amendment to paragraph 19 more specifically emphasizes the points that I have consistently made in my testimony, that this amended paragraph 19 denies the use of Otter Tail's facilities for the taking away of its customers, helping take away its customers, more explicitly than did the original 19.

[T. VII, 121] By Mr. Anderson:

Q. You have been here, I take it, for most of the trial and heard the testimony, and I guess you have read some of the documents.

Do you recall that sometime prior to 1968 when this RSR-Otter Tail contract was signed, that RSR made some overtures to Hankinson to sell power at wholesale to Hankinson? Do you recall that?

A. That is what I have gathered from the exhibits, Mr. Anderson. As a matter of fact, prior to seeing these exhibits, RSR explicitly denied doing such a thing in conversations with me at public meetings.

Q. What prompted Otter Tail to enter into this contract in 1968 with RSR, GX-38?

A. To obtain mutual benefits that are available from that particular type of effort, plus a continuation of our willingness and desire to coordinate all of the electric facilities in our service area.

Q. Now, RSR is a member of Central Power Electric Cooperative, is it not?

A. That is my understanding, yes.

Q. And is it your understanding that Lyon-Lincoln Cooperative and Traverse Electric Cooperative are members of East River?

A. Right.

[T. VII, 122] Now, I show you GX-39 which is a transmission service agreement between Lyon-Lincoln Electric Cooperative, Traverse Electric Cooperative and Otter Tail Power Company, dated February 6, 1964. I call your attention specifically to paragraphs 8 and 9, can you, without reading the paragraphs, can you paraphrase or describe in your own words the effect of those two paragraphs?

A. Paragraphs 8 and 9, one characterizes use of service, and No. 9, that Otter Tail is not a common carrier. The last I will dispose of by saying that is the normal language already read into the record. Paragraph 8 indicates that this contract will not provide a means for the bringing of energy to any customer now a customer of Otter Tail over the facilities of Otter Tail Power Company.

Q. Now, I would like to show you one last contract, and this one is between Otter Tail Power Company and East River Electric Cooperative, Inc., GX-65, dated June 13, 1969.

I call your attention to paragraph 9 of the basic contract and paragraph No. 14 of a two-page agreement which is attached to the basic contract.

Will you tell us, first of all, in your own words what paragraph 9 of the basic contract, GX-65, is designed to accomplish?

A. Paragraph 9 is a disclaimer that either party intends to indicate by this contract that either one or the [T. VII, 123] other is a common carrier.

Q. The other is paragraph No. 14 of the attached two-page agreement.

A. Paragraph 14 of the attached agreement reads: "Except with the written consent of the other party, neither party hereto shall directly or indirectly sell or deliver electric power and energy to any wholesale or retail consumer to which the other party has established electric service and such service is still available."

Q. Now, I note at the bottom of that page is an indication that this is an OTP Form. It says OPT Form 842. Am I correct in assuming that this is a standard form contract that Otter Tail uses?

A. I believe that would be a fair assumption, yes.

Q. One thing I don't find on this document. Perhaps you can explain why it's not here. Maybe I simply didn't get the whole thing, but I don't see any, anything to indicate that the Rural Electrification Administrator approved this contract. Do you have any knowledge about that?

A. I don't know why such is not attached, though I do not know of any requirement that it need be attached.

Paragraph 19 indicates, "This agreement is subject to all present and future applicable regulatory laws and governmental regulatory bodies having jurisdiction thereof." [T. VII, 124] And the responsibility is not on the part of Otter Tail to obtain REA aproval. The responsibility would be on the part of East River.

Q. But you don't know whether the administrator approved this, I take it?

A. I do not know as a matter of fact whether he did. I can only assume that he did because that is a requirement of his, of the member cooperatives.

Q. Well, I think in your direct testimony you made mention of the fact that Britton, South Dakota, was having some discussion about municipal power, and that East River was somehow involved in the whole process, is that correct?

A. I attempted to say something and you objected.

Q. As I recall, you did say it anyway. Let me ask you this. Looking at GX-65, this contract between Otter Tail and East River Electric Cooperative, isn't it true that this contract has the effect of making it impossible for East River to render service to that town using these facilities, facilities covered by this contract?

A. Well, now, with that limitation that you put on in the last sentence changes 180 degrees what would be my answer

otherwise, because these facilities described here don't particularly come close to the community of Britton.

Q. It talks about a substation in Britton as I recall.

[T. VII, 125] A. That with the proximity of East River lines to Britton, the building of an East River line for some short distance to Britton is all that would be necessary.

Q. It also would be necessary to use the substation in Britton, wouldn't it?

A. I don't know. I am not the engineering witness in our case. You might ask that of Mr. Nye who will follow me.

Q. Okay.

The Court: Is this a logical time, counsel? Are you through with that particular subject?

Mr. Anderson: Yes. It would be excellent.

The Court: All right. We will be in recess until 10:00 o'clock tomorrow morning.

(Whereupon, a recess was taken until 10:00 o'clock a.m., June 10, 1971.)

[T. VIII, 1]

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
SIXTH DIVISION

(Title Omitted in Printing)

The above-entitled matter came on for trial before the Honorable Edward J. Devitt, Chief Judge of the above-entitled Court at Saint Paul, Minnesota, commencing at 10:00 o'clock A.M. June 1, 1971.

The following transcript contains the proceedings of June 10, 1971.

(Appearances as heretofore noted.)

* * * * *

[T. VIII, 2] (June 10, 1971)

Whereupon,

ALBERT V. HARTL,

a witness having previously been sworn, resumed the stand and testified as follows:

CROSS-EXAMINATION
(Continued)

By Mr. Anderson:

Q. Mr. Hartl, yesterday in your direct testimony I believe you indicated at one time in the late 40's and early 50's Otter Tail Power Company served a number of cooperatives at wholesale, do you recall that?

A. Yes.

Q. Do you recall approximately how many such cooperatives were served at wholesale by Otter Tail?

A. My memory is not the most accurate and there may be a confusion in my figures as between the number of cooperatives and the points of connection because some cooperatives were served at several points of connection.

Q. Let me just give you this and see if this refreshes your recollection as to how many there were?

A. This memorandum you have handed me would indicate that at that time we were serving 22 cooperatives.

Q. That's as of August, 1949?

A. Yes.

Q. Can you tell us approximately when Otter Tail began rendering wholesale service to those cooperatives?

[T. VIII, 3] A. Otter Tail began rendering service to those cooperatives when they came into existence.

Q. Well, generally speaking when did most of those come into existence, in the 40's or late 40's?

A. Frankly, Mr. Anderson, I do not know. We started serving the first cooperative in 1937 and as they came into being we attempted to service all the cooperatives in our service area.

Q. Now, you recall that some time in late 1948, early 1949, Otter Tail raised its wholesale rates to these cooperatives by approximately 30 percent?

A. Yes.

Q. And that the cooperatives were somewhat unhappy with that and complained to the FPC and some hearings were scheduled on the matter with the FPC?

A. Are you making a statement?

Q. No—

A. What's the question?

Q. I am asking you whether you recall that these cooperatives became, that they were unhappy with this great increase and initiated proceedings at the FPC on the matter?

A. I have no knowledge as to whether any of the cooperatives were unhappy. They did resist the rate increase application before the Federal Power Commission.

Q. Now, at about that same time, late 1949, 1950, [T. VIII, 4] there was some question also, was there not, as to whether Otter Tail would be able to meet the growing loads of the cooperatives that they were serving at wholesale?

A. There was a concern. I would not concede there ever was a question about our ability to ultimately handle the demands on our system but there was a concern because it was the fastest growing segment of our sales.

Q. Well, do you recall that Otter Tail at some point in the early 1950's entered into some sort of an agreement or understanding with NSP concerning the rendition of wholesale service to these 22 cooperatives?

A. Inasmuch as Otter Tail Power Company has from the very beginning of the REA movement fostered and encouraged the development of the cooperatives and if as you said they were unhappy with our proposed wholesale rate, the Northern States wholesale rate for similar service was somewhat lower than Otter Tail's proposed rate and in a continuing attempt to foster the cooperative movement Otter Tail willingly relinquished its cooperative customers to Northern States.

Q. And did the agreement in effect provide that Northern States would supply power and Otter Tail would supply the means of delivering the power to the customers?

A. I have no recollection of the arrangement as to the capacity or power supply problem. I do know that physically the cooperatives continued to be served just as they had been [T. VIII, 5] when they were customers of our company.

Q. In other words, the power went over your lines?

A. Right.

Q. And I take it at some point subsequent to the time that we are talking about, most of those coop loads, at least those that were located in the Bureau marketing area, went to the Bureau as preference customers?

A. I believe that was 100 percent of them.

Q. Just to digress for a moment, I think you indicated that Otter Tail had encouraged the development of REA coops in its area, do you recall that?

A. That is correct.

Q. Would you explain why Otter Tail did so?

A. Otter Tail Power Company operates in an area that can be described as no other way than predominately agricultural. The well-being of our communities that we serve at retail is dependent upon the well-being of the farming community that makes them viable. Therefore, anything that

enhances the economic position and condition of the farm families in the non-urban areas of our service territory likewise in a manner will translate itself into a benefit for Otter Tail Power Company because these people will do business in the community that we serve at retail.

[T. VIII, 6] Q. Well, now, Mr. Hartl, I would like to show you GX-66 which is the 1950 contract between Otter Tail and the Bureau of Reclamation.

I call your attention specifically to section 16a of part 3 which talks about the granting of the license to the United States to transmit power over the Otter Tail system to preference customers.

Would you look at that and then very briefly in your own words explain what restrictions there are in that section, if any, concerning the extent to which Otter Tail will permit its transmission facilities to be used by the United States to deliver power to preference customers?

A. My quick perusal of this very lengthy section would indicate that Otter Tail granted to the Bureau of Reclamation or to the United States the right to use its transmission network that was operating at 13,200 volts or higher, and limited that unless special arrangements were made to an area within a 50-mile radii of some intersecting point, but that section did not apply in the State of North Dakota.

Q. Section 16a did not apply to North Dakota?

A. No, the 50-mile radii limitation.

Q. Now, look at section 17c of GX-66, beginning at the bottom of page 17, and it talks about electric energy to be transmitted.

Would you read that section for us, please?

[T. VIII, 7] A. Section c: "Electric power and energy to be transmitted by the United States to its customers over

the transmission system of the contractor shall be limited to such power and energy as is necessary for the following classes of customers:

1. Irrigation and drainage district pumping plants.

2. Customers entitled to preference under governing law.

3. Customers engaged in the construction, operation and/or maintenance of hydraulic projects or facilities for the United States."

Q. This contract is the 1950 contract, is it not?

A. It is dated March 14, 1950.

Q. That contract is no longer in effect, I take it?

A. No. It has been superseded.

Q. Superseded by the contract you and Mr. Field were talking about yesterday which was signed in 1954 or 1955?

A. 1955.

Q. Did that contract apply only to the State of North Dakota?

Mr. Field: Which one?

By Mr. Anderson:

Q. I am sorry, GX-66, the 1950 contract?

A. Mr. Anderson, I am not qualified to say what all the provisions are in this document of 40 pages because it is a [T. VIII, 8] relatively old document. It is not the current operating one that I am more familiar with. I would have to take the time to examine this contract.

Q. Just looking at page 3 of GX-66, you will notice that all the delivery points are in North Dakota. I believe I am reading right. Is that correct?

A. All the delivery points indicated on page 3 are in North Dakota, and I can explain that further; if my memory serves me correctly, the Bureau had not yet extended its lines into Minnesota.

Q. That brings me to my next question, Mr. Hartl.

Do you recall that subsequent to this 1950 contract between Otter Tail and the Bureau, subsequent to that contract the Bureau of Reclamation gave some thought to the possibility of extending its system, its transmission system from North Dakota down into Minnesota?

A. I do not know what the Bureau of Reclamation considered.

Q. Do you recall that in the early 1950's there were discussions before the Appropriation Committees of Congress as to the advisability of the Bureau building a transmission line from North Dakota down into Minnesota?

A. Yes. I personally testified at some of those hearings.

Q. Now, I would like to show you GX-206, and if it is [T. VIII, 9] possible for you to do so, I would like to have you point out for us the Bureau line which was the subject of the discussion in the early 1950's before these Appropriations committees.

A. On GX-206, the line is shown as a dark red line extending from West Fargo into Minnesota, through Morris, Minnesota, and terminating at Granite Falls, Minnesota.

Q. Is that a 230 kv line?

A. That is a 340 steel tower line.

Q. Now, you indicated that you testified before the Appropriations Committee concerning this proposal. Do you recall what position Otter Tail Power Company first took with respect to the advisability of building this line?

A. The original position the first time I made an appearance was in opposition to the building of the line which position was subsequently reversed.

Q. Well, I would like to show you a Xerox or photostatic, whatever it is, reproduction of a portion of the Congressional

Record. It's not the Congressional Record, it's the collection of the hearings, Congressional hearings concerning this proposal.

I show you the book it comes from. You can tell me if that's, if that's your first appearance?

A. Yes. Recognizing it from the personalities that were there, this is the first appearance.

Q. Yes. In order to avoid undue confusion on the [T. VIII, 10] record I would like to have this marked as GX-444, and when I say this, I mean the statement of Albert V. Hartl before the Interior Department of Appropriations Committee in 1951.

(Government GX Exhibit 444 marked for identification.)

By Mr. Anderson:

Q. Now, what position, Mr. Hartl, did you as a representative of Otter Tail Power Company take with respect to the construction of the 230 kv Bureau line down into Minnesota on the occasion of your 1951 appearance before the Appropriations Committee?

A. 1952 appearance, I don't recall a '51.

Q. I think actually, you actually did appear in '51?

A. Yes. That, as I previously mentioned, our original posture was in opposition to the building of the line.

Q. Why were you in opposition to it?

A. Because as my statement indicates on page 2124, in our opinion as we understood at that time, that would be duplicating facilities.

Q. It would be duplicating your facilities?

A. It would be duplicating the existing facilities in Minnesota that were already adequately handling the load that existed in Minnesota.

Q. I take it you felt fairly strongly on the subject of duplication of facilities?

[T. VIII, 11] A. I have no recollection of your adjective, "Strongly." I do—I am quoting from what you have marked as an exhibit there, "Therefore any expenditure authorized for additional lines would be wasteful duplication."

Q. Let me just digress for a minute here. You think it's wasteful duplication to have, for example, Hankinson build a line to connect a system, municipal system at Hankinson with a Bureau substation some 40 miles away, in your judgment as a utility executive, do you think that is wasteful duplication?

A. Mr. Anderson, all things are relative, and they must be judged within the context of the entire picture of what is being brought about by this particular part of the utility plant construction, and if the building of such a line destroys another utility entity and that would involve its property, then it might be wasteful.

On the other hand, if by the construction of that line the greater good for a larger number of people is preserved and the competitive forces in the area are preserved, then whatever objection I might have to duplication must be waived in light of the greater good.

Q. Now, getting back to your 1951 appearance before the Appropriations Committee.

Mr. Field: If the Court please, I haven't been objecting to this line of testimony, and I am [T. VIII, 12] not sure I will now, but we are going back into history here and maybe opening up subject matter that will need further exploration. I presume counsel has something pertinent in mind, and I haven't interrupted it and hesitate to do so now as far as that goes, except remark it does seem to be going back into history in perhaps an irrelevant fashion.

The Court: You may go ahead.

By Mr. Anderson:

Q. Now, looking at page 2124, did you advise the committee in 1951 that Otter Tail at that point was wheeling or delivering power to all preference customers of the Bureau in North Dakota who were within the Otter Tail service area?

A. I made a statement similar to that that is contained on page 2124 immediately under the caption, "Wheeling Contract."

Q. I take it Otter Tail did not feel that the Bureau transmission grid in North Dakota represented a duplication of facilities?

A. I do not recall making any comment on that.

Q. Well, I am asking you for your recollection of it? Did Otter Tail oppose the building of the transmission, Bureau transmission network in North Dakota?

A. To the contrary, Otter Tail Power Company appeared before a committee of Congress and asked for an acceleration of the building of the Bureau lines in North Dakota.

Q. Why was that? Why did Otter Tail take that position?

[T. VIII, 13] A. In order to accommodate Central Power Cooperative.

Q. Why was Otter Tail advancing—how did Otter Tail find itself in a position where it was advancing the cause of Central Power, I don't understand?

A. My previous statement that I made, it has been a long standing policy of Otter Tail to foster and help REA cooperatives in their area.

Q. So, let's see if I understand this correctly. The situation in North Dakota was that it was perhaps a scarcity of high voltage transmission and so the Bureau network was a welcome addition in the area, is that so?

A. To me there is no duplication of facilities if they serve different purposes and have different characteristics even if

they may follow the same right of way, and the Bureau agreed in North Dakota in the original construction aspect, superimposed a higher voltage over the Otter Tail voltages then existing in the state and could not be considered a duplication of facilities.

Q. Now, in these 1951 Appropriation hearings before the Congress and in your presentation thereto, do you recall whether you indicated to the committee that Otter Tail was willing to extend the scope of its 1950 Bureau contract to include those portions of South Dakota and Minnesota which were in Otter Tail's service area?

A. Insofar as it applied to REA cooperatives.

[T. VIII, 14] Q. Now, looking at 2127, you state there at the bottom of the page, and I quote, "We have always held ourselves ready, and I repeat before this committee, we are willing to wheel energy over this and our other company transmission lines to all preference customers in our area." Do you recall making that statement?

A. It is recorded here in the minutes of that Appropriations Committee meeting, so this is going back 10 years, but I suppose I made it.

Q. Now, some time subsequent to your appearance in 1951 before the Appropriations Committee, did Otter Tail change its corporate position concerning the advisability of the Bureau building this 230 kv line down in to Minnesota?

A. Could I have that question read back?

Q. I coughed a few times there, and if you like, I will repeat it.

A. Will you repeat it, please.

Q. After your appearance before the Committee in 1951, did Otter Tail subsequently change its position regarding the

advisability of building a 230 kv line for the Bureau down through Minnesota?

A. Yes, it did.

Q. Can you explain why Otter Tail changed its position on that?

A. For the same reason that I gave you just a few [T. VIII, 15] minutes earlier in response to duplication in North Dakota. When the utility companies in Minnesota were apprised of the characteristics of the line that would be built, they sensed that there was, in fact, no duplication of facilities, that it was the superimposition of a much higher voltage transmission line over anything that then existed in the area, and as such, it duplicated nothing that then existed.

Q. You knew that in 1951, didn't you? You knew in 1951 that they were talking about a 230 kv line and presumably in 1951 you knew what the configurations of the transmission lines existing in the area were, is that correct?

A. Mr. Anderson, without in any way trying to be evasive, the voltages stated in this Committee testimony speaks of a 230 kv line, but my recollection after 10 years is that there was nothing that was settled or that definite as to whether the lines would be only 230 kv or whether there might be other voltages that might be constructed.

Q. So you, as I understand your testimony, you and Otter Tail decided—as I understand it, you supported the 230 kv line ultimately?

A. When we were convinced that was the only voltage line the Bureau of Reclamation proposed to build, because that would not duplicate any facilities.

Q. I take it that line, in fact, was ultimately built?

A. Yes, and it is now in existence and in operation.

[T. VIII, 16] Mr. Anderson: Your Honor, I neglected to offer Government's Exhibit 444, and I do so now.

Mr. Field: We have no objection.

The Court: It may be received.

(GX-444 offered and received in evidence.)

By Mr. Anderson:

Q. Yesterday, you and Mr. Field were discussing the June 1955 supplement to the Otter Tail-Bureau contract which I understand has now become the basic contract, and you were talking about paragraph 26f and more particularly about paragraph 27c which sets forth the company's position, as I understand it, with respect to which types of preference customers, which preference customers will be provided with service by Otter Tail pursuant to the contract, and I am referring to Exhibit 67.

Do you recall that testimony?

A. Yes, I do.

Q. I think you also suggested in your testimony that provisions roughly equivalent, roughly similar to 26f and 27c, as those provisions are reflected in GX-67, appear in other Bureau contracts with utilities for the wheeling of power? Do you recall saying that?

A. Yes.

Q. When you said that, do you have reference to the [T. VIII, 17] contracts which the Bureau has with Interstate Power and Northern States Power?

A. I particularly had reference, I believe, to Northern States Power and Minnesota Power and Light. I am unfamiliar with the Bureau contract with Interstate.

Q. Isn't it true that prior to the time that the 1955 Bureau-Otter Tail contract came into being, that Otter Tail, Northern States and Interstate discussed the question among themselves collectively, the question of just what sort of restrictive provision ought to be put in the contract to protect their retail loads?

A. I have absolutely no recollection of such a conference.

Q. I have some documents here which maybe will refresh your recollection.

A. Mr. Anderson, these documents have reminded me of some negotiations that went on between our company and the other companies. I did not conduct the negotiations. At least one of those letters is addressed to me and it was delegated to another officer of the company at that time for handling.

Q. You must be aware, at least to some extent, of what in broad outline the negotiations were all about?

A. I would like to respond to the question, but with all the adjectives in it, it's a little difficult.

Q. Well, you can throw away all the adjectives and [T. VIII, 18] respond to it the best you can.

A. As officer of the company, I knew that this correspondence that you have shown me had taken place.

Q. Beyond the fact that you knew that there had been an exchange of correspondence, did you become apprised of at least to some extent what the substance of all this was, what was going on and being discussed?

A. I was apprised of the subject matter but not of the substance because it was being handled by other people.

Q. You will agree, won't you, as it all turned out, the contracts that Interstate and Northern States and Otter Tail had with the Bureau contain roughly the same restrictive provisions insofar as protection of customers is concerned?

A. I don't concede for a moment your terminology of "restrictive." The fact that the contracts have relatively the same language, I will concede, because in a vague context, I recall that that was the purpose of having Mr. Smith, whose correspondence you showed me a while ago, work on this matter.

Q. He was kind of a negotiator for all three companies? Is that what he was?

A. I would rather use the term, that he was a coordinator of language.

Q. Okay. Now, I take it you did not mean to suggest yesterday that all the contracts that the Bureau has with utilities for delivery of Bureau power contain provisions [T. VIII, 19] similar to that?

A. I hope I didn't state that because I don't even know how many such contracts exist.

Q. Do you know whether the Bureau contract with MDU has that sort of language in it?

A. I do not know that. The only thing that I do know about the MDU contract is that the conditions in their service area are so tremendously different from what they are in other areas that I would be surprised if the language was the same.

Q. How about the contract between Northwest Public Service Company and the Bureau? Do you have any recollection or any knowledge as to whether that contract has provisions which parallel those that we have been talking about in GX-67?

A. I do not know.

Q. Now, one final area concerning the 1955 contract between the Bureau and Otter Tail Power Company. Do you recall who suggested that paragraph 26f and 27c be inserted in the contract?

A. No, I do not.

Q. You would agree that most likely it was the Otter Tail Power Company who suggested it?

A. No, I don't know why I should agree to that.

Q. Why would the Bureau suggest it?

A. I don't know.

[T. VIII, 20] Q. I think yesterday you told us that the reason why those provisions are in the contract is to protect Otter Tail, isn't that true?

A. I doubt, Mr. Anderson, very much that I ever made a statement like that. One would have to read the transcript, but I do not believe I made a statement like that.

Q. Isn't that the result of those provisions being in the contract? It does afford Otter Tail protection?

A. It affords Otter Tail a measure of protection.

Q. I take it that your testimony comes down to this, that you did not play any role in the negotiations of the 1955 Bureau-Otter Tail contract?

A. As I indicated to you in previous testimony, the deposition portion, the negotiations of this phase of the contract were carried on by a Mr. Mau, then a Vice-president of the company, who was charged with the area of responsibility at that time.

[T. VIII, 21] Q. I think you also advised us yesterday that these paragraphs 26f and 27c of the 1955 contract which has been marked GX-67, were the subject of negotiation between the parties, namely, between Otter Tail and the Bureau, do you recall that testimony?

A. Yes.

Q. How do you know that, you have so little knowledge of the negotiating, how were you ever able to make that statement?

A. Because in my capacity as one of the senior officers of the company, it was incumbent upon the other officers to make periodic reports to me.

Q. Mr. Mau must have told you that one of the positions that Otter Tail was taking in the negotiations, it wanted provisions such as 26F and 27c put in the contract, didn't it?

A. Well, he reported to me I am quite certain that negotiations relative to that type of language were being had.

Q. Isn't that the point of all these discussions among Interstate, Otter Tail and NSP through this Mr. Smith, the coordinator, isn't that what all these discussions related to the question of what sort of language should be put in these contracts to afford some measure of, as you would call it, protection to the companies, isn't that the [T. VIII, 22] thrust of all this?

A. That, to the development of language that was proper.

Q. And language which was designed to do what?

A. To protect the interests of the parties that were negotiating the contract.

Q. In any event, we can agree, can we not, it was not the Bureau of Reclamation which took the initiative in suggesting the inclusion of 26f and 27c in that contract?

A. I previously indicated to you, Mr. Anderson, that I do not know that as a fact, therefore, I cannot agree to it.

Q. Do you have an educated opinion on that? What would your guess be?

A. (No response.)

Q. In the course of these reports that you say you got from Mr. Mau concerning the evolution of the negotiations relative to GX-67, I assume Mr. Mau advised you as to what the Bureau's position was on various parts of the contract?

A. He may have.

Q. Do you recall what he told you concerning the, of things we've been talking about here today, namely 26f and 27c of GX-67?

A. Again without any definite recollections of the precise words, the only recollection I could have is that the Bureau was willing to accede to the inclusion of some [T. VIII, 23] language such as is now contained.

Q. Now, moving on to another area, I think yesterday you indicated that in addition to the Bureau-Otter Tail basic contract, that each of your wheeling customers has to and has in fact negotiated with Otter Tail a separate services agreement, and those agreements are all in the record. In order to get the power, the company negotiated—the town negotiates with Otter Tail these other contracts like the Tyler contract?

A. I believe that does apply to every instance.

Q. Now, those particular contracts, and I think they bear the GX numbers 3 through about 21 or 20, those contracts don't require the approval of anyone at the Bureau of Reclamation, do they?

A. No. But they all state that they are foundationed on the Bureau of Reclamation contract.

Q. Now, I would like to show you GX-39 and call your attention specifically to a letter which is attached to that contract, the basic contract is the transmission service agreement between Lyon-Lincoln and Traverse Electric Cooperative and Otter Tail Power Company. Attached to that is a letter from Warren Nye of Otter Tail to the manager of East River Electric Power Cooperative dated October 1, 1965. I ask you to take a look at that.

A. Yes. I have reviewed this letter.

[T. VIII, 24] Q. Well, now, I take it that the purport of that letter is that Otter Tail is willing to wheel Basin power, power produced by Basin Electric Power Cooperative to East River?

A. I believe that is the purport of this paragraph. Mr. Nye who wrote this letter is in the room and will be testifying and will have greater knowledge of this than myself, but the original concept of agreements with the Bureau was for wheeling of hydro power, and this indicates that power from other sources would also be wheeled.

Q. And Basin being a thermal source would be included among the other sources, I take it?

A. Well, it was at about this date the other source was available or about to be available to the Bureau of Reclamation.

Q. I see. Now, do you recall, moving to something else, do you recall whether at one time Otter Tail Power Company served the, I guess it's the North Dakota School for the Deaf in Devils Lake, North Dakota at retail?

A. That is correct.

Q. Now, did the school for the deaf in Devils Lake subsequently obtain an allocation of power from the Bureau of Reclamation?

A. I am unaware, Mr. Anderson, as to whether the school for the deaf did or whether it was part of the larger allocation of the board of administration which would be the [T. VIII, 25] supervisory agency for the school in North Dakota.

Q. Now, did Otter Tail agree to wheel the Bureau power to the school for the deaf?

A. Frankly I don't know. I am aware that there was a change in conditions at that school.

Mr. Anderson: Excuse us, Your Honor, we misplaced a document.

Mr. Field: Is it the deposition so we can follow along?

Mr. Anderson: Yes. I am trying to find the page. Pages 253 and 254 of the Hartl deposition which has been marked as GX-287.

Mr. Field: What pages?

Mr. Anderson: 253 and 254.

Mr. Field: I guess it impinges on 256, doesn't it, the subject matter?

The Witness: Yes, Mr. Anderson, your giving me of this record, your giving me GX-287 refreshes my memory of that situation.

By Mr. Anderson:

Q. Would you briefly tell us, give us a little recap of what the situation is?

Mr. Field: Just a minute—

Mr. Anderson: I will ask a better question.

[T. VIII, 26] Mr. Field: Well, the deposition has been offered, and—

Mr. Anderson: We didn't—

Mr. Field: Is there any point of covering the same ground?

Mr. Anderson: I am going beyond the deposition.

The Court: You may answer and tell us.

The Witness: My testimony as contained in GX-287 indicates that we did agree to wheel to the School for the Deaf at Devils Lake, North Dakota.

By Mr. Anderson:

Q. Are you able to take yourself back in time and tell us approximately when the School for the Deaf left Otter Tail and became a wholesale customer of the Bureau? Was it in the 1960's?

A. It would be in the late 1960's.

Q. Now, the question that I would like to ask you is this: Why was Otter Tail willing to wheel power to this former retail customer?

A. Well, as I responded to that same question by you in the deposition, I will repeat that answer, because we wanted to.

Q. What is the difference? I am trying to probe the decision-making process in the company concerning when it [T. VIII, 27] will and when it will not wheel power to former

retail customers? What is the distinction, for example, between the situation we have been talking about with the School for the Deaf and the situation we have talked about earlier in the trial concerning the efforts by Hankinson, North Dakota, to have Otter Tail wheel Bureau power to it?

A. Well, I think that there is a distinct difference. You are equating a municipality with a multiplicity of customers within it, that as a municipal operation wishes us to wheel to them as distinguished from the School for the Deaf, a state institution north of Devils Lake, North Dakota, that was under the supervision of a state body for administration, which had already arranged with Otter Tail Power in other instances for wheeling of power to a state institution.

Q. Do you have any idea how many people are in the School for the Deaf?

A. I have a fairly good idea.

Q. About how many would that be?

A. They have about 134 students at present.

Q. Would it be fair to say that the load which that institution represented to Otter Tail is roughly equivalent to the load that Otter Tail had in some of its smaller towns it serves at retail?

A. Will you define a "town," and then I will answer [T. VIII, 28] that question. What do you mean by a "town"?

Q. I am referring to—

A. To expedite things, I will readily concede that the load at the School for the Deaf is greater than a number of communities that we designate in our reports as towns. We also have farms that are larger in load.

Q. Than some of the towns, some of the communities?

A. Yes.

Q. I see. I would like to show you GX-41, Mr. Hartl, which is the agreement between Central Power Electric Cooperative, Inc., and Otter Tail Power Company, dated July 1, 1958.

Now, looking at that contract between Otter Tail and Central Power, do you find any provisions in that contract which serve to protect, if I may use that word, Otter Tail's retail customers?

A. Yes.

Q. Would you show me which—

A. Although it's been superseded by a more current supplement, beginning on page three there is an indication of the delivery points at which we will deliver energy.

Q. Is there anything in the contract which would inhibit the cooperative entities which receive the energy at those delivery points from delivering that energy to a town which Otter Tail serves at retail?

[T. VIII, 29] A. My quick perusal does not call to my attention such a paragraph.

The Court: Maybe this would be an appropriate time, Mr. Anderson, for about a ten-minute recess.

(Recess taken.)

[T. VIII, 30] The Court: Mr. Anderson.

By Mr. Anderson:

Q. Well, now, Mr. Hartl, I would like to have you take a look at the agreement between Otter Tail and Minnkota Power Cooperative, Inc. Now, that agreement encompasses the basic contract and several supplements. The entire range has been marked starting with GX-48 and runs through GX-55. When you are looking through that, would you see if you can find any provisions in any of those—in that contract or any of the amendments thereto which serve to protect Otter Tail's retail loads?

A. I know that there is no language similar to what we have indicated in the other contracts prior to you showing me this one.

Q. You mean nothing similar to the language, for example, which is in the Otter Tail-Cooperative Power Association Contract?

A. That's right.

Q. I would like to show you the transmission service agreement between, among Northern Minnesota Power Association, Rural Power Association, United Power Association, NSP and Otter Tail which has been marked as GX-40, and would you look at that and tell me whether you find any provisions in that contract which are in effect protecting Otter Tail's retail loads?

[T. VIII, 31] A. I do not believe that there is such in these Northern Minnesota contracts.

Q. Now, moving to another area. As I recall your testimony on direct, you indicated that the North Dakota Public Service Commission regulates the Otter Tail retail rates and conditions of service in the State of North Dakota?

A. Correct.

Q. And that Otter Tail endeavors to have standard retail rates to the extent possible over the three-state area?

A. Yes.

Q. And that in effect the North Dakota Public Service Commission acts as a regulatory commission for the whole three-state area?

A. Insofar as rate regulation is concerned. I would not make it as broad as your question implies.

Q. Just limiting the focus here to rate regulation then. Now, do you know whether retail customers of Otter Tail in Minnesota and South Dakota are permitted to participate in

rate hearings in North Dakota before the Public Service Commission?

A. They are permitted to attend any rate hearings, and I have knowledge that at times they have done so, but inasmuch as they are not parties within the jurisdiction of the State of North Dakota, unless they had an interest that—over which the North Dakota Commission had jurisdiction, I do not [T. VIII, 32] believe that they could be parties, formal parties to a hearing.

Q. They can come and watch and that's about it?

A. Yes.

[T. VIII, 33] Q. Coming to DX-40, Mr. Hartl, yesterday at my request you explained to us what the term "energy portion" meant, and I didn't fully understand it. I want to ask you a couple of questions about that.

Now, as I understand it from my limited experience in this area, utilities customarily break things into three categories, production, transmission and distribution, is that correct?

A. Those are the three primary functions into which utility accounting is broken.

Q. Isn't the so-called energy portion customarily, at least in very substantial part, lumped in with the production area?

A. Insofar as the operating costs of the energy portion are concerned, they are more probably associated, more closely associated with the production function than the other functions that we have mentioned here.

Q. Now, looking principally here at page one of DX-40, looking at the production portion reflected on page one, as I calculate, the production portion represents approximately 28 percent of the total, does that strike you as being roughly in the ballpark?

A. That is approximately correct.

Q. Isn't it true, Mr. Hartl, that generally speaking, for most utilities that figure would be closer to 45 percent, [T. VIII, 34] or thereabouts?

A. I do not have available national statistics on that. I do know from comparisons that I have made in the past that we are low. I believe your figure would be on the high side, and I can tell you why quickly, if it is within the province of the question.

I will try to be brief and responsive.

As I did mention in my direct testimony, Otter Tail Power Company has a greater transmission investment than you will find in the normal plant. Therefore, the overall total is greater, and if you start taking a proportion of that, then you are going to arrive at a smaller figure.

Q. Now, looking at page three of DX-40, without in any way immersing ourselves in any of the details of the thing, wouldn't you agree with me that the cost per unit at municipal gate is a matter which is subject to dispute right now in the Elbow Lake proceeding with the FPC? There is a controversy as to whether the figures you people have presented relative to those costs are the right figures, and the other side is contesting that? Wouldn't you agree with that?

A. In that case, the Otter Tail figures are the only municipal gate figures that are in evidence in that case.

Q. There has been controversy—

[T. VIII, 35] A. There is controversy.

Q. —as to the composition of those figures?

A. That I do not concede. Witness Krezanousky had another theory that is the subject of controversy.

Mr. Field: I think I should object to the witness being asked such a question. The decision of the trial examiner, the Honorable Ames W. Williams states that the cost at the munic-

ipal gate, the figures that Otter Tail presented went uncontested either by cross-examination or by rebuttal, and exceptions have been taken to that decision of the trial examiner and the matter is yet undecided by the Commission. At the hearing there was no contest as to the figures.

The Court: Are you through with the figures, anyway?

Mr. Anderson: Yes, Your Honor.

The Court: It may stand. Next question.

By Mr. Anderson:

Now, yesterday in discussing the unit costs at the municipal gate as reflected on page three of DX-40, you made some comparisons between the Otter Tail costs and, as I recall, the Bureau of Reclamation. How do these unit costs, how do these unit costs at the municipal gate of Otter Tail compare with similar costs, for example, of NSP, [T. VIII, 36] if you know?

A. I do not know as a matter of fact. I could only assume that these are higher.

Q. How about one other, MDU, do you have any—

A. I am relatively unfamiliar with the details of MDU's cost.

Q. I assume here on page three of document 40, I assume that the energy portion there reflects the purchases of power that Otter Tail makes from the Bureau of Reclamation and from cooperatives? Would that be a fair assumption on my part?

A. Would you read the question back, please?

(The question was read.)

The Witness: Yes, it does.

By Mr. Anderson:

Q. And I think your testimony yesterday indicated that in your judgment, this power is low cost power, power from the Bureau and power from the cooperatives?

A. Is underpriced power. That is the term I used.

Q. Right. Now, would I be correct in assuming, Mr. Hartl, that were it not for the fact that Otter Tail was in a position, was able to buy this underpriced power, that the figure shown in the energy portion would be higher?

A. On page three, yes.

Q. And that figure down at the bottom of the page, [T. VIII, 37] cost per unit at municipal gate, energy portion, which reads 0.6322 cents per kilowatt would be a higher figure were Otter Tail not able to buy this underpriced power?

A. Yes.

Q. Well, now, moving to DX-41, looking first at page one of DX-41, focusing on the actual figures on the top half of the page, during the period 1961 through 1970, the Otter Tail total operating revenues rose from 21 million some odd dollars to 34, almost 34 and a half million dollars?

A. Yes.

[T. VIII, 38] Q. And that the earnings per share of common stock rose during that same period from $1.16 to $1.88?

A. That is also correct.

Q. Now, as I understand your assumption here of the loss or erosion of customers at a rate of 5 percent a year, I assume that means that at the end of 10 years, 50 percent of Otter Tail's retail load will be gone?

A. Actually mathematically it might be a slightly higher percentage because this calculation was made on a compounding—no, it will be a little less than 50 percent because it's always 5 percent of a declining base.

Mr. Field: By load—excuse me for intruding, Mr. Anderson,—by load did you mean customers?

By Mr. Anderson:

Q. I meant customers. I'm sorry.

A. That approximately 50 percent of the customers mathematically if it would be precisely 5 percent a year, it will be a little less than 50.

Q. Well, I notice in looking at the operation and maintenance expenses reflected down in the erosion study portion of DX-41, the bottom half of page 1, that the operation and maintenance expenses increased from about 9.4 million in '61 to 15.4 million in 1970, you see that?

A. Yes.

[T. VIII, 39] Q. Now, the thing I am having a little trouble understanding is, well, before I get to that, I should point out that your actual figures show in the top half of page 1 of DX-41, that the operation and maintenance expenses there are 17 million in 1970 as contrasted with 15.4 million down in the erosion study, you see that?

A. Correct.

Q. The thing I can't understand is why down in the erosion study you have such a large amount of operating maintenance expenses at the end of the tenth year when by virtue of your assumption 50 percent of the customers will be gone at the end of the tenth year?

A. If you would have the opportunity as I have to be actually part of the management of a utility company, this would become more obvious to you, that we are and in the foreseeable future will continue to be in a period of continued inflation, consequently, the remaining body of employees will expect to be paid at continuingly increased rates, that the taxing bodies of the area on which you serve will continue to want more revenues for the services that they will be offering, and the sum total of those matters to my surprise also, when I develop the final mathematics on the thing, indicate that expenses

still will be at the amount of $15,000,000; and so that you may not be so amazed by that, would you look at the figure above that total operating [T. VIII, 40] revenues? I have lost, as you stated, the 50 percent of my customers, but my revenue is still greater than it was at the beginning of the period maybe but I still am going to have to provide the kilowatt hours to sell the remaining customers in even larger amounts.

Q. My only confusion was why the expenses did not decrease proportionately. It seems if you lose 50 percent of your load or of your customers at the end of 10 years you ought to be able to shave a good deal of your costs?

A. Well, they may be your assumption, but if you take that assumption under the actual conditions that you must face in making budgetary estimates and in planning for the future, you will find that that does not obtain and it didn't in this study. You are cutting the number of customers and we very carefully are making the difference between that and load in this instance.

Q. Now, continuing our scrutiny of page 1 here of DX 41 and focusing again on the erosion study portion, the bottom half of page 1, if you go through the first six years of the erosion study, you notice there is an increase in revenue and the earnings per share of common are still above a dollar. You notice that?

A. Yes.

Q. And then—

A. A dollar or above. They are not all above a dollar.

[T. VIII, 41] Q. Yes. Right. But then starting there at the end of 1966, there is, the figures show a rather rapid deterioration of the situation reaching a point in 1970 where you are only going to have earnings of 2 cents per share, you notice that?

A. Yes.

Q. Would you explain to me why at that juncture there between 1966 and 1967, there is suddenly such a precipitous drop?

A. That can be explained in only one way, Mr. Anderson, that is the mathematics that results from the assumptions that are listed on sheet 5 of this exhibit and further demonstrates the disastrous results of erosion that might not be immediately apparent but suddenly there will be an accelerating effect to this as it continues. So I may be oversimplifying it to you, but that is simply the mathematics of the assumptions that are listed on page 5.

Q. Well, suppose the erosion stopped at the end of 1966. At that point if I calculate the mathematics, there would have been an erosion of 30 percent, is that right?

A. Approximately.

Q. All right. Well, suppose it stops. Suppose the erosion stops at 30 percent. Now, Otter Tail would be able to survive then, wouldn't it?

A. The results at 1966 are not satisfactory results for Otter Tail to remain viable and competitive in the American [T. VIII, 42] utility field.

Q. Well, they are better in '66 than they were in '61, aren't they?

A. By 1 cent. It is incumbent upon management of a utility company to demonstrate a continued capability of increasing earnings if it is to command respect in the financial marketplace.

Q. Now, turning to sheet 5 of DX-41, particularly referring to the third basic assumption and further defining matters to expenses for operation and maintenance which you assume will be decreased proportionately, is that right?

A. That the depreciation, taxes and interest on short term borrowings and expenses for operation and maintenance will be decreased proportionately.

Q. It's true, isn't it, that expenses for operation and maintenance at the distribution end are disproportionately large, larger than would be the case for production and transmission?

A. I do not understand your question, Mr. Anderson?

Q. Are you assuming that the expenses, operating and maintaining production, transmission and distribution are proportionately equal, is that your assumption now? Is that where you start?

A. No. That I have recorded on page 1 of Exhibit 41 at the top half, that's actual expenses that were occurring, [T. VIII, 43] incurred. Then at the bottom half of Exhibit 41, you take those same actual expenses. There are no assumptions made. And then you apply the assumptions listed on page 5 to those expenses to arrive at the new figure shown on the bottom half of Exhibit 41.

Q. I see. Well, now, just asking you a few more questions about your assumptions so I understand exactly what they are. Your first assumption is that Otter Tail will suffer a loss, 5 percent loss of customers per year. So I take it the first year there will be a loss of 5 percent, assuming 464 towns, 5 percent of 464 towns?

A. No, Mr. Anderson, that is not the assumption. We are not losing 5 percent of our towns. We are losing 5 percent of our customers.

Q. I see. You took the total number of people in the towns?

A. No. We took the total number of customers which is a different figure from the number of people.

Q. How do you define customers?

A. A customer is defined as a person that is receiving electric service from a utility company.

To make a simple analogy, if you are buying at your home from Potomac Edison, the account is in your name. You are a customer, but there is your wife and child that are people living in the same household.

[T. VIII, 44] Q. I see. One other point of clarification. You indicate here that one of your assumptions that Otter Tail will be able to borrow at the prime interest rate, short term borrowing?

A. Yes.

[T. VIII, 45] Q. Now, what figure, what percentage figure did you use to represent the prime rate?

A. Well, you have to make assumption as to what that prime rate will be, and we are starting with five and a half and I continued with five and a half during this study. (Corrected later).

Q. Now, is this document here, DX-41, based on any other studies which Otter Tail has prepared or has had prepared for it?

A. No, this is based, the top half of this sheet one is based on the actual books and records of the Otter Tail Power Company. Otherwise, this study was prepared specifically for this hearing.

Q. Now, looking back over the past 25 years, Mr. Hartl, would you tell us how many retail towns Otter Tail Power Company has lost?

A. I gave you that information in an answer to one of the interrogatories.

Q. Well, let me tick three off, Aurora would be one, Colman would be two and Elbow Lake would be three?

A. Yes.

Q. Can you think of any others?

A. In order to be consistent, I would like to refresh my memory, if I may, from my answer in the interrogatory.

Q. The record should show that the interrogatory is GX-2.

[T. VIII, 46] A. In answer to Interrogatory 2(b), there is a list of nine towns which discontinued receiving retail distribution service from Otter Tail during the period about which you inquired.

Q. How many of these nine established municipal electric systems?

A. The three that we have previously mentioned.

Q. Now, looking at those three towns, Aurora, Colman and Elbow Lake, and doing a little mathematics which I did last night, I give you GX-2 so you can check me on these figures as I go along, and in Aurora in 1967, which is the last full year which Otter Tail served Aurora, this document GX-2 shows that the total annual revenue derived by Otter Tail from its retail sales was $18,857 on sales of 555,798 kilowatts, right?

A. Kilowatt hours, yes.

Q. Kilowatt hours, right. Sorry.

Moving quickly here to Colman and looking at the year 1964, which is the last full year Otter Tail served the town at retail, as I see the figures there, the annual revenue was $46,572 on sales of 1,307,240 kilowatt hours, is that correct?

A. Yes.

Q. Now, finally, moving to Elbow Lake, the figures there show for the year 1965, which was the last full year [T. VIII, 47] of service, retail service from Otter Tail, it shows an annual revenue of $149,221 and it shows kilowatt hour sales of 4,209,674 kilowatt hours, is that right?

A. That is right.

Q. I have added these two columns of figures and I have come up with a total of $214,650 and a total of 6,216,712 kilo-

watt hours. This is my addition. Does that look about right?

A. Yes.

Q. Now, comparing that figure, and let's just concentrate on the revenue figure, with the 1970 actual Otter Tail revenues as reflected on DX-41, the 1970 actual total operating revenues, as I see it here, were $34,456,729, is that about right?

A. Right.

Q. Now, would you concede that the erosion which has occurred over the past 25 years, using those figures, amounts to less than one percent for the entire period? Does that sound about right?

A. Now, what are we applying our percentage to, one percent of what?

Q. One percent of your 1970 revenue.

A. That is correct.

Q. That is one percent over 25 years as opposed to five percent a year.

[T. VIII, 48] Now, as I understand it, one of the assumptions upon which—

Mr. Field: Do you want an answer to your last question? You were comparing one percent with five percent.

Mr. Anderson: That wasn't really a proper question. It was more of a statement, which I probably should withdraw and I will withdraw.

By Mr. Anderson:

Q. I take it that one of the other assumptions upon which DX-41 was predicated was that those retail towns of Otter Tail Power Company which left would not be establishing their own self-generation operation, is that correct?

A. That is correct, because we assumed that we would wheel to them.

Q. The assumption being that they would buy their full requirements from some third party and Otter Tail would wheel the requirements of the town?

A. Yes.

Q. Have you had occasion, Mr. Hartl, to read the testimony of Mr. Muller, Mr. Fred Muller who is the chief of power marketing sales for the Bureau of Reclamation, Region No. 6?

A. I have had a limited amount of time to scan it. I haven't read it in detail.

[T. VIII, 49] Q. Well, now, you will admit, won't you, that the Bureau of Reclamation has no power to allocate to new preference customers at least until 1977?

A. That is what Witness Muller said in his testimony, and yet, I know of no instance where the Bureau of Reclamation did not give sympathetic consideration to any inquiry made of them as to whether power would be available.

Q. Have you had occasion to read the correspondence which Mr. Muller was examined about, correspondence between municipalities seeking power from the Bureau over the past couple of years, and Mr. Muller's responses to that?

A. Will you generally define the geographic area of those municipalities?

Q. They are in Region No. 6, Eastern Division of the Missouri River Basin Project.

A. I was shown some correspondence relative to communities in the State of Iowa, if those are the ones to which you have reference.

Q. I see some referring to the State of Minnesota, for example, Granite Falls, and South Dakota.

A. I would have to be shown the correspondence. I have no recollection of it.

Q. Referring to GX-218 to 234, let's just first look at Exhibit GX-227.

A. Yes, I have it before me.

[T. VIII, 50] Q. Would you read that? It's brief. Would you read that, please?

A. This is a letter to the Honorable Jack O'Connor, Mayor of Granite Falls, Granite Falls, Minnesota:

"Dear Mayor O'Connor:

"Your inquiry concerning a firm power commitment for your city was received today. All of our long-term firm power is considered already committed to preference customers, under the firm power allocation made by the Secretary of the Interior on July 8, 1964, and by later actions. We therefore do not have firm power available to commit to Granite Falls at this time. Unless additional resources are developed for marketing in the Eastern Division, which we do not expect by 1978, we will not have firm power available to commit to your city for 1978. Consequently, Granite Falls should not anticipate a long-term firm power supply from the Missouri River Basin System for the foreseeable future."

[T. VIII, 51] Q. Now, do you recall when the last Bureau allocation of power in region number 6 occurred? About 1964?

A. Well, that is what that letter stated, and then it related to subsequent actions. I do know from the files in our own office that firm power allocations were made through '73 with supplemental power available through '77.

Q. I see. But those extensions which occurred, those notices of extensions which the Bureau produced subsequent to the 1964 allocation referred only to existing preference customers, did they not?

A. I believe that is correct.

Q. As distinguished from preference customers not then in the municipal power business and not then buying power from the Bureau, correct?

A. I would have to refresh my memory as to dates of certain documents involving some of those, some municipalities mentioned in this area, but generally I could go along with your statement.

Q. Then I guess we can agree that so far as the Bureau of Reclamation is concerned, that at least until 1977, the Bureau of Reclamation cannot be a source of erosion of the Otter Tail Power System?

A. I have—

The Court: Excuse me just a moment. I guess I didn't hear all of the question. Repeat it.

[T. VIII, 52] (The question was read.)

The Witness: I can only answer that by saying, and I don't wish to be facetious, recital of an old song title, "It seems to me I heard that song before," because as witness Grahl indicated here last Friday, there has been a cycle, cyclical development of the same type of notification to municipalities: "We haven't got any more after such and such a date;" That date comes along and lo and behold they did have more, and we have heard on numerous occasions at this hearing the great plans that are under consideration for further development of capacity in this general geographic area without identifying by the specific body that would have that capacity.

So I have every reason to believe that somebody will develop capacity in this area prior to 1977 that will be available to the Bureau of Reclamation, and as further comment on that, if I may be permitted, the Tennessee Valley Authority came into being with a limited amount of hydrocapacity. It has completely eroded all the investor-owned companies in that area. It now has approximately 85 percent of its capacity as thermal.

Q. But getting back to my question. The record shows, does it not, that so far as the Bureau of Reclamation is con-

cerned, it does not have power available to new preference customers at least until 1977, isn't that clearly evident [T. VIII, 53] from the testimony of Mr. Muller?

A. That is evidence contained in the deposition of Mr. Muller.

Q. You would agree with that, wouldn't you?

A. No. I said I did not agree with the conclusion. I will agree that the statements were made, that the correspondence exists.

Q. What evidence do you have to show the Court that something else is the case?

A. The historic record of the development of the facilities and capabilities of the Bureau of Reclamation in this area.

Q. Now, do you recall Mr. Muller's testimony that even in the possible 1977 period, that the Bureau at this point does not know whether it's going to be able to meet the incremental demand of its existing preference customers, you recall that testimony?

A. I recall he so stating, yes.

Q. I am drawing a distinction here between existing preference customers, namely, towns that are already in business and people who, towns that are not presently in business but could be preference customers if they did decide to go into the business?

A. Yes.

Q. Now, you made mention of the fact that you heard [T. VIII, 54] about Mr. Grahl's testimony. Now, do you recall Mr. Grahl saying that Basin Electric Company has never sold a single kilowatt of power to a municipal system?

A. To his knowledge.

Q. Well, do you have any—he is the man that runs space in the electric power company. He says he never sold a kilo-

watt of power to a municipal system. You wouldn't dispute that?

A. There are municipal systems being served by cooperatives in the State of South Dakota, and I am not conversant with the actual source of energy, but they are in the general area of East River Cooperative.

Q. Are you referring to Colman and Aurora?

A. No. Municipal operations served directly by cooperatives.

Q. Well, do you recall Mr. Grahl saying that the principal mission of Basin Electric Power Cooperative was to supply the loads of its member cooperatives?

A. Yes.

Q. And you recall him also saying that all of the power to be produced from Basin's existing unit, the one that's scheduled for some time in the future, has already been allocated among its member cooperatives, do you remember that testimony?

A. I remember he so testifying.

[T. VIII, 55] Q. And do you recall his saying that the only occasion for Basin selling power to a municipal would be if there were power in excess to the needs of its member cooperatives?

A. Yes.

The Court: Is this the logical place for us to recess?

Mr. Anderson: Sure.

The Court: We will recess until 2:00 o'clock.

(Whereupon a recess was taken until 2:00 o'clock P.M. June 10, 1971.)

[T. VIII, 57] (June 10, 1971, 2:00 o'clock P.M.)

(Appearances as heretofore noted.)

Whereupon,

ALBERT V. HARTL,

a witness having been previously sworn, resumed the stand and testified further as follows:

CROSS-EXAMINATION
(Cont'd)

By Mr. Anderson:

Q. Mr. Hartl, I assume we can agree that the erosion study contained in DX-41 is premised upon the notion that power to those towns that leave Otter Tail will be available from other sources?

A. Yes.

Q. Now, you explained this morning that the five percent erosion, annual erosion figure refers to a loss of customers?

A. Yes.

Q. Now, I guess it's fairly obvious that this loss of customers would occur only as entire towns left the Otter Tail system and set up municipal systems?

A. That's what I testified to yesterday that rather than a deliberate five percent each year it would tend to be a stair step effect.

Q. Now, given the fact that Otter Tail presently has [T. VIII, 58] as I understand it, 464 retail towns, could we agree that roughly an average of 23 towns would be leaving each year under this erosion study, the figure varying depending upon the loads of particular towns leaving in a given year?

A. What is the average size town you must have factored into that statement?

Q. Well, I am afraid that my analysis didn't reach that level of sophistication. I just took five percent of 464 and came up with 23 towns.

A. I repeat again, Mr. Anderson, my erosion exhibit is premised on the losing of customers, not towns.

Q. Yes. I appreciate that. What I am trying to do here is to gain some appreciation of the number of towns we could expect to see encompassed within this five percent figure each year. I realize it would vary depending upon the sizes of the loads. I am trying to get some rough approximation of the number of towns that we would see eroding away from Otter Tail each year?

A. That I will concede of the average size of our towns, it would be in the vicinity of 20.

Q. Now, I take it you are familiar with the North Central Power Study?

A. Well, I am familiar with the fact that it is under way.

Q. And I take it that Otter Tail is represented at [T. VIII, 59] the meetings of the North Central Power Study?

A. If we have membership on the particular committee that is meeting.

Q. Well, Otter Tail is a participant in the study, is it not?

A. We are a participant in the study, and we are very interested in the study, and I promised my cooperation to Mr. Smith in the study.

Q. Who is Mr. Smith?

A. James Smith, the Assistant Secretary of Interior in charge of power and water.

Q. Now, do you from time to time either see the reports which the North Central Study group publishes and sends to those people who are participating in the study?

A. If I do not see the actual report, some staff member in the normal course of our office procedures reports to me on the subject.

Q. Well, then, I take it you are aware of the fact that one of the assumptions upon which that study is predicated is that the Bureau of Reclamation will be kept, for purposes of the study, at its 1977 load level?

A. I am not aware of that because as I stated this morning, the actual ownership of these proposed planned facilities has never been determined.

Q. I am just talking about the assumptions upon which [T. VIII, 60] this study is premised. I am calling your attention specifically to the assumption with regard to the capacity of the Bureau of Reclamation, and I am asking you if you are aware of the fact that that assumption is that the Bureau of Reclamation will remain, for purposes of this study, at its 1977 capacity level?

A. Well—

Q. Talking about the Bureau of Reclamation facilities, either those it owns or those it operates?

A. In that the largest block of the Bureau facilities, it neither owns or operates, they are operated by the Corps of Engineers, and that's why I am hesitant in answering your question. I want to make sure we understand our terms here.

Q. When I say Bureau of Reclamation, I am referring to the facilities the Bureau owns and operates and—

A. Those are only two minor facilities on the Missouri River.

Q. Well, as I understand it, the Bureau operates the Corps of Engineers—

A. No. They do not. The Corps operates them.

Q. Well, the Bureau markets them?

A. Markets the output, yes.

[T. VIII, 61] Q. I am including all the Bureau facilities for which the Bureau has responsibility for the marketing of power.

Now, having defined the thing that way, can you now answer my question concerning the assumption that the North Central Planning Group has made with respect to the amount of power which the Bureau will have to have available for marketing?

I will show you this and see if this refreshes your recollection at all. This is—I won't mark it, but it is one of these reports from the North Central Power Study participant.

I refer you specifically—there is no page number but I point to the page here.

A. Now, I ask you, what is your question?

Q. My question is whether you know that for purposes of this study, an assumption has been made that the Bureau of Reclamation's marketing capacity will be fixed at the level that the Bureau achieves as of 1977?

A. I could see that an affirmative answer to you could be implied in this conclusion of Harold Aldrich, listed here as regional director of the Bureau of Reclamation; but likewise, when I am aware that the Corps of Engineers is studying the additional installation of over a million kilowatts on the main stem dams which almost automatically will become available to the Bureau of Reclamation, I cannot accept your [T. VIII, 62] conclusion.

Q. Let me further ask you this. Are you aware of the fact that another assumption of the study is that those Corps of Engineers' dams that you refer to, by the virtue of their costs, have been excluded from the study, that they are not being considered at all in the study?

A. I am unaware that that final decision has been made. I am aware that they were developing a high cost per kilowatt installed, but that they have formally been dropped, I am not aware of that.

Q. I would like to refer you to Defendant's 24, and this refers to the thing we have just been talking about, the Corps of Engineers' peaking unit. It's entitled, referring now to page 13, and this is dated May 17, 1971, the May 17, 1971 report:

"Hydropeaking task force—The report is in pencil draft form. A total of 3,000 mw of hydropeaking capacity is being recommended. Locations are near Cody and Sheridan, Wyoming, for the East system. Main stem peaking estimated at an average of $330 per kilowatt has not been included because of the high cost. The Corps of Engineers has not made studies to determine what the cost would be at each site. If some sites prove economically feasible, they could be considered in subsequent phases in the NCPS."

Now, does that refresh your recollection as to [T. VIII, 63] whether that particular—

A. That is the current report. I will accept that it does refresh my memory, that is the latest report available of the study committee.

Q. The Corps of Engineers' peaking plants aren't embraced by the North Central Power Studies either?

A. Not as of the time of that memorandum.

Q. May 17, 1971?

A. The study is not completed. It has not arrived at a final conclusion.

Q. We can agree, can we not, that this North Central Power Study is not a government-controlled and directed power study, I take it?

A. I find it very difficult to accede to that statement inasmuch as its prime instigator, if that word does not have a perjurative connotation, was this Mr. James Smith who I mentioned. In fact, it is more widely known in the upper midwest as the Smith Study.

[T. VIII, 64] Q. Do you agree that the Department of Interior spearheaded and suggested the study and in effect provided the leadership which got the thing going?

A. Yes.

Q. In fact, whether anything comes from the study will depend upon the reaction of the participants in the study?

A. That is correct.

Q. Speaking of power supply, has Otter Tail recently succeeded in at least laying the foundation for the importation of electric power from Canada, from Manitoba?

A. Well, Otter Tail Power Company is a participant in a joint endeavor which makes available to our service territory another source of energy, namely, the Manitoba Hydro Commission Developments.

Q. Would I be proper in characterizing that power as government power?

A. A Canadian crown corporation is not to be compared with a government entity in the United States, because in Canada when a government entity goes into a proprietary function such as the electric utility business, they are expected to return to the province an amount in lieu of taxes similar to what a non-government entity would pay, and they have to pay a higher rate of interest than would a straight government department.

[T. VIII, 65] Q. Am I correct in my assumption that that power will be priced at around two mills?

A. My observation and relationship with the people of the Manitoba Hydro Board has been that they are very shrewd bargainers. They will sell in the United States just that amount under what the potential customers in the United States could get it for so they have maximized their return.

Q. What is the mill per kilowatt that you expect to be paying for that power, about two mills?

A. Two and a fraction. I don't remember exactly what it is.

Q. How does that compare with the price you pay the Bureau for power?

A. If it is between the two- and three-mill range, it is lower.

Q. Now, another assumption that you made in preparing that erosion study, DX-41, is that Otter Tail would make no wholesale sales to former retail towns, is that correct?

A. Right.

Q. Why did you make that assumption?

A. Because of my firm belief that the availability and the price level of alternate sources of supply would be comparatively so favorable that no potential wholesale customers would choose service from Otter Tail Power Company.

Q. I would like to show you GX-11 which is the [T. VIII, 36] contract between Otter Tail and the Village of Shelley, Minnesota. I see the term of that contract is ten years, and it runs, I think, until 1980, is that correct?

A. That would be correct. It is dated in August, 1970.

Q. Looking at page six of that contract, Section 3c, "Firm electric service," the first paragraph reads: "Otter Tail agrees to sell and deliver and the municipality agrees to take and pay for such firm electric service as the municipality may need in addition to the amount supplied by the Bureau."

Do you see that?

A. Yes.

Q. Doesn't this contract clearly contemplate that Otter Tail Power Company will supply the partial requirements of the town of Shelley to the extent that the Bureau is unable to supply the town's needs?

A. That is what is possible under this contract.

Q. In view of Mr. Muller's testimony, isn't it more than possible? Isn't it quite likely that come 1977, that that is exactly what will happen?

A. This is not the place to mention it, but I would give you odds on that, that if history will be repeated, by 1977 the Bureau will have found some additional source of power and will continue to serve Shelley as it does now.

[T. VIII, 67] Q. Well, suppose that Mr. Muller is right, suppose the Bureau doesn't have any power beyond its 1977 level, and suppose that it cannot meet Shelley's post-1977 load growth; then I take it Otter Tail would be willing to supply power at wholesale to Shelley?

A. That is why we entered into this contract with them.

Q. And if such an eventuality should occur, then Shelley would be what is known as a partial requirements wholesale customer?

A. Yes.

Q. And would I be correct in assuming that should Mr. Muller's analysis prove to be correct, namely, that the Bureau will not be able to take care of existing preference customers' post-1977 needs, that in that eventuality, Otter Tail would be prepared to make wholesale sales to each of the Bureau's preference customers to whom Otter Tail presently wheels power?

A. Yes, and sometime prior to that, these communities are obligated to give us a reasonable notice that they will start taking.

Q. Now, let me ask you this, Mr. Hartl. You have given us this erosion study, DX-41, and you say that Otter Tail, as I understand it, and correct me if I am wrong, but you say that Otter Tail has to refuse to sell at wholesale and has to refuse to wheel power in order to prevent the [T. VIII, 68] erosion of its business, is that correct?

A. Right. We decline. You use the word "refuse."

Q. Whatever word we use, you don't do it, right?

A. Right.

Mr. Field: I think, Mr. Anderson, you left out an integral part of his testimony as to new municipal systems that threaten to leave Otter Tail.

By Mr. Anderson:

Q. You can factor that into the question.

Well, now, exactly how does Otter Tail's policy of declining to wheel power or to sell power at wholesale to existing retail customers serve to prevent the erosion of the Otter Tail system?

A. The motivating force for the establishment of municipal operations in our service territory, in my opinion, is the profit motive. There is the opportunity for that town or city to make a profit which it can use to the benefit of the community, either by lowering electric rates to the customers or by making, in lieu, payments to represent taxes to the general fund of the community and lowering the tax burden on the community. Therefore, there is a great desire to maximize those profits whenever a municipal operation is undertaken, and it would appear obvious that the most profitable method would be by [T. VIII, 69] obtaining the lowest cost source of energy which, under the rate schedules that have been compared at this hearing, is obviously a government entity or some government-financed entity. Therefore, if, by our willingness to make our own facilities available to a community to enable it to leave us so it does not have to supply its own capital, the physical facilities are already there supplied by us, they will be able to further maximize their profit, and if once that channel is made clear to them, "Here the government will require that you do this," I predict a rapid expan-

sion of the municipal agitation situations in our territory and an acceleration of the erosion of our system.

Q. The question was, how does Otter Tail's disinclination to wheel, disinclination to sell at wholesale, serve to either retard or prevent erosion of the Otter Tail system?

A. By not making our facilities available to communities that want to use them in order to leave us as a retail supplier we then will require that they consider alternative sources of supply, and these alternative sources of supply are not normally as readily available to them as would be Otter Tail facilities, and therefore, they seek to obtain the usages of our facilities.

Q. I think your testimony has indicated that in your opinion, there's always been an abundance of what you call [T. VIII, 70] underpriced government power available in the area.

How do you explain the fact that Otter Tail has lost only three retail towns over the past 25 years?

A. I explain that because of the ability of Otter Tail Power Company to explain to its municipalities the great advantage of continuing under the free enterprise system. I have instructed my managers "You cannot sell this proposition on a mathematical basis. It can only be sold on a philosophical basis." Here, again, I apologize to His Honor because he said that he didn't want to get into philosophy.

Q. We will see if we can get into some facts here. Looking at GX-214, which is the July 8, 1964, allocation announcement by the Secretary of the Interior, Assistant Secretary of the Interior, as I read that—let me back up.

In 1964, as I understand it, Otter Tail had approximately 464 retail towns?

A. Yes.

Q. As I read this document, and you can check me on it, eight of those towns received allocations of power from the Bureau?

A. I believe that is correct from my recollection.

Q. As I peruse that document, I pick out the following names, Hankinson, North Dakota; Finley, North Dakota; Aurora, South Dakota; Colman, South Dakota; Elbow Lake, [T. VIII, 71] Minnesota; Perham, Minnesota; Wahpeton, North Dakota, and Milbank, South Dakota.

Does that sound right?

A. Yes.

Q. Let me ask you this. How do you explain the fact that only eight of the 464 towns, each of which towns is a potential preference customer of the Bureau, how do you explain the fact that only eight of them sought an allocation of power from the Bureau?

A. Because it takes a conscientious effort on the part of the city fathers in each of those communities to actually arrange and get permission to make a formal request of the Bureau of Reclamation. They are elected officials of the community and ostensibly react accordingly and do what the townspeople wish to have done. If the majority of the townspeople do not want a government entity to go into business in their town, then the city fathers do not make application. I know that there were many more towns in our service area that considered making an application.

Q. Looking at these eight towns, let's find out what actually happened after they got their allocation. We know that Aurora and Colman went into business as municipal power systems and used the allocation?

A. Yes.

Q. I think we can agree that Finley elected not to [T. VIII, 72] use its allocation and elected, instead, to remain a retail customer of Otter Tail Power Company?

A. This is the situation as of this date.

Q. We know that Elbow Lake established its own generating plant and set up a municipal system?

A. Yes.

Q. But Elbow Lake was not able to utilize its allocation of Bureau power?

A. Not to date.

Q. Now, Perham, Minnesota, apparently didn't even have an election on the issue?

A. I am unaware of the purpose of Perham having asked for an allocation.

[T. VIII, 73] Q. Perham is still a retail customer of yours?

A. Customers of Otter Tail, yes.

Q. I take it Wahpeton didn't have an election either?

A. They did not.

Q. And Wahpeton still remains a retail customer of Otter Tail?

A. Yes.

Q. Now, Milbank, the last of the allotees, apparently didn't have an election either, according to GX number 2 which is the defendant's answer to plaintiff's interrogatory number 2, asks for a list of all the towns where there had been municipal agitation which reached the point of an election, and as you look on page 2 of that exhibit you will notice that Milbank had an election in 1953 but didn't have anything after that?

A. Insofar as elections are concerned, yes.

Q. So Perham, Wahpeton and Milbank, although they got an allocation apparently did nothing with it, didn't even bother to hold an election on the question?

A. That's what one can infer from the record.

Q. That's what happened, isn't it?

A. Well, they didn't avail themselves of the allocation.

Q. Now, yesterday there was a little discussion about the town of Finley on your direct examination, the suggestion being made that in Finley the coop manager or official played [T. VIII, 74] a role in developing interest in a municipal power system, do you recall that?

A. Yes.

Q. I think we have just seen that Finley did manage to obtain an allocation of power from the Bureau, didn't we just see that?

A. Yes.

Q. Now, it's true, is it not, that the particular coop that we are talking about, the name of which escapes me—

A. Sheyenne Valley.

Q. Sheyenne Valley, is located right on the outskirts of Finley?

A. It maintains its headquarters in Finley.

Q. Right. And it has transmission lines which come very close to the town of Finley if not pass right through it?

A. Well, maybe this is nit picking. I don't think it would qualify as a transmission line. The transmission line of the coop in the vicinity is that of their supplier Minnkota Power Cooperative.

Q. We could agree, could we not, that had Finley decided to proceed with the development of a municipal power system that Finley could have arranged the delivery of this Bureau of Reclamation allocation over lines other than the Otter Tail Power Company lines?

A. I am sure they could have.

[T. VIII, 75] Q. Finley did not go municipal power, did it?

A. It has not done so to date.

Q. How do you explain that?

A. In the same way that I stated awhile ago, if I can again get off philosophically, that the citizens of the community are not convinced that that would be the better course for the city as a whole and have not yet transmitted a thought to the contrary to their elected officials.

Q. Now, are you familiar with the town of Velva, North Dakota?

A. Yes, I am.

Q. Now, is that a retail town of the Otter Tail Power and Light Company?

A. It is a retail town of Otter Tail Power Company.

Q. Now, is it true that there are a number of transmission lines owned by, or I should say power lines owned by people other than Otter Tail Power Company which pass proximate to the town of Velva?

A. Yes.

Q. Was there recently municipal agitation in the town of Velva?

A. There was, and while we are directly related to your previous question, the city of Velva likewise is the headquarters for Rural Electric Cooperative, and there was municipal agitation.

[T. VIII, 76] Q. How long ago was that?

A. '68, '69, in that span of two years.

Q. What happened in Velva? What was the upshot of all this?

A. The outcome was that the citizens of Velva elected not to go into the municipal operation of an electric utility.

Q. Well, now, doesn't the fact that towns like Velva and Finley which are located in such a way that they are able to obtain delivery of power through means other than Otter Tail Power Company, isn't it the fact that those towns though they had a supply of power, though they had a means of obtaining it—strike that question.

I forgot where I was at.

Well, the point I am trying to make, can't we say that the Velva and Finley situations illustrate that there is much more involved in establishing a municipal power system than merely finding a supply of power and means of delivery, there is a lot of other things involved?

A. I will concede that there is more involved, but the primary considerations always appear to be a source of energy and the ability to get the energy to the community.

Q. We could agree, I take it, that the process by which the town goes about establishing a municipal power system is a fairly involved process, hiring an engineer, scheduling an election, trying to sell the bonds, trying to [T. VIII, 77] find power, all of this is pretty involved and takes a fair amount of time, doesn't it?

A. That there are prescribed by law certain definite procedures that a community must follow, now, whether that describes is deliberate or complex or whatever adjective you use I do not know, but it tends to be a deliberate procedure that has legal ramifications and must be followed.

Q. And in point of fact, not very many of the Otter Tail retail towns over the past 25 years have gone through that process, only a handful, isn't that true?

A. Well, there again what you can characterize as a handful I do not know. As I testified yesterday, municipal agitation has been with Otter Tail perennially during the 60 years of its existence, and I foresee that it will continue.

Q. And Otter Tail has had a pretty good record of selling its story, hasn't it, and keeping the towns?

A. That is not the Otter Tail story, that is the story of free enterprise in the United States.

Q. However you want to characterize it, Otter Tail has succeeded much more often than it's failed, has it not, in persuading the towns to remain with it, even towns like Finley which had the Bureau, the enterprise Bureau power and means of delivering it?

A. The alternative to your conclusion is we have had towns where we were not aware of municipal agitation that are [T. VIII, 78] now proposing to set up a municipal operation. They have no Bureau allocation but announced that they are going to get their energy from the Bureau.

Q. Well, now, turning to something else. This morning we had a discussion about several contracts which Otter Tail has with cooperatives, transmission agreements, for example, we talked about Minnkota-Otter Tail contract and the Otter Tail contract with Central Power and the contract that Otter Tail has with UPA, among others, you recall that?

A. Yes.

Q. Now, I take it those contracts are further illustrations of the point you were making yesterday, namely, that it's Otter Tail's desire to achieve a substantial degree of integration with neighboring utilities all of which is designed to enhance the reliability of the Otter Tail system as I recall your testimony?

A. It is to enhance the mutual reliability of the participating systems and facilitate the exchange of energy.

Q. I guess we can agree that in order for Otter Tail to successfully negotiate this sort of agreement with coops it's not always necessary for Otter Tail Power Company to have

in the contract a provision designed to protect its retail loads, we could agree on that, could we not?

A. Would you read that back to me, please?

(The question was read.)

[T. VIII, 79] The Witness: I could agree to that statement only if I could modify it to say we do not have to have the language in each contract that you have called to my attention like in the East River contract, specific paragraphs.

Q. I am not entirely sure that I caught the drift of your answer. I don't think I understand what you are saying?

A. The fundamental provisions of the contract may be such that they do not cause me any concern. To give a specific example, the UPA contract, that we contract to deliver only to certain specified points, no one of which is in the vicinity of any of our retail towns.

Q. Now, moving on to something else which I have dubbed my accretion study. Let me ask you a few questions.

Mr. Field: I didn't get that word?

Mr. Anderson: Accretion, a-c-c-r-e-t-i-o-n.

By Mr. Anderson:

Q. Is it true that Otter Tail Power Company has over the past few years attempted to diversify its operations beyond electric power?

A. Within the last year we have gone into several minor diversification efforts.

Q. What are those efforts?

[T. VIII, 80] A. One is—

Mr. Field: May I interrupt just for a moment?

Mr. Anderson: Sure.

Mr. Field: I can't see the materiality of the diversification efforts or programs of Otter Tail to the issues in the case. If there is some I have no objection to it but it seems immaterial to me.

The Court: Well, let's listen, maybe it will help us.

Mr. Field: All right.

The Witness: The first of these is the equity ownership of a new Holiday Inn just west of Fergus Falls, Minnesota. The ownership of a small manufacturer of mobile homes and modular housing known as the Ord Corporation at Pelican Rapids, Minnesota, and related to the Holiday Inn investment, the development of a realty company proposing to develop for commercial purposes the land lying between the Holiday Inn and the west city limits of Fergus Falls that are owned by the realty corporation.

Q. Now, do you recall having made a presentation before the New York Society of Security Analysts on November 18, 1970?

A. I did. Yes.

Q. And do you recall having advised that group that [T. VIII, 81] Otter Tail is on the brink of developing a very large new industrial load in its area having to do with pumping facilities?

A. The fastest expanding retail load that Otter Tail is happy to contend with at the moment is the crude oil pumping load, the Canadian crude coming through our service territory going on to eastern refineries.

Q. And can you tell us approximately how large a load that is going to be?

A. Well, measured in what way, Mr. Anderson?

Q. Well, in terms of your total system load? I will give you the speech here. You can look at it and refresh your recollection.

Mr. Anderson: I ought to have this marked as GX-445 if I may, so that we'll know what we are talking about.

(Government Exhibit 445 marked for identification.)

The Court: Absent an objection it may be received.

Mr. Field: I haven't seen it until this moment, Your Honor.

The Court: Well, if it's a speech by your client I don't suppose you would object to it.

Mr. Field: Well, I am not sure [T. VIII, 82] if it's material. I would like to find some materiality in it.

The Court: All right. You look it over.

Mr. Field: There is another basis for objecting to it, if we do object to it. The pretrial order required the exchange of exhibits and this was not included among them.

Mr. Anderson: We were just able to get our hands on this particular thing yesterday afternoon and sometimes these things happen.

The Court: Why don't you tell him what part of it is you are interested in?

Mr. Anderson: I did. Pages 2 and 3.

The Court: Maybe he doesn't care.

The Witness: I stated at that time that this new crude oil pumping load will represent nearly one-fourth of our present annual kilowatt hour sales and more than our total residential sales of just nine years ago.

By Mr. Anderson:

Q. I see on page 3 that you continued on to explain that Otter Tail industrial loads were developing in your area and you end up by saying, "And the list is far from [T. VIII, 83] complete." Are there any other large or fairly large industrial loads which you anticipate will be developing in your service area other than those you have mentioned here?

A. No. I have no names that I can add to this particular list, and I want to caution you on the utilization of the term that I have of industrial expansion. In our service territory

we probably call it industrial expansion. In the sophisticated east they sniff and say you just have a large commercial load. You haven't got any industry out there.

[T. VIII, 84] Q. And I think you also told us yesterday that Otter Tail enjoys a seven percent increase in its load each year, is that true?

A. We have approximated that. We have very closely approximated the national average of the electric industry which has historically been seven percent.

Q. Mr. Hartl, would you tell me what Otter Tail's present bond rating with Moody's is?

A. The bond rating of Otter Tail with Moody's is Baa.

Q. It's been Baa since 1958, has it not?

A. It has been Baa with Moody ever since Moody has given a rating to any Otter Tail securities.

Q. Now, I would like to refer to a statement that you purportedly made on page three of your 1969 annual report. I will read the statement, and then I will ask you a question about it:

"As I have often indicated in the past, we are dedicated to growth. To that end, we are offering to buy municipally owned electric systems in communities near our electric lines. The groundwork was laid in 1968 for additional offers of this kind to be made in 1969."

Do you recall that statement?

A. Yes.

Q. Would you explain to us what you mean by that statement, what you meant by that?

[T. VIII, 85] A. Otter Tail Power Company, if its analysis determined it would be to the mutual advantage of itself and some one of the municipal operations in our area to operate as a part of Otter Tail, we will attempt negotiations with the community to the view of buying that community and

integrating it into the utility system of Otter Tail Power Company.

Q. You say that the groundwork was laid in 1968 for additional offers of this kind to be made in 1969. Will you explain what you mean, that the groundwork was laid?

A. By that, I mean that I as chief executive officer of the company took that up with my board of directors to get their permission to proceed with a program of this type, with the understanding that they must approve any proposition that I would think I had in the final stage. I might add that it's been singularly ineffective. I have made no purchases since 1968.

Mr. Field: What is the status of GX-445? I have had an opportunity meanwhile to examine it.

The Court: I read it, too. I don't know that it makes much difference.

Do you object to it?

Mr. Field: I suppose it's all right to have a chuckle when you are trying a lawsuit, and I refer to the top of page 11, first paragraph.

[T. VIII, 86] The Court: Absent objection, 445 may be received. If you object, I will sustain the objection. I don't think it makes much difference.

We will recess for ten minutes, and maybe you can think about the termini.

(Government's Exhibit 445 offered and received in evidence.)

(Recess taken.)

[T. VIII, 87] Mr. Anderson: I have about 15 minutes at the most, Your Honor.

By Mr. Anderson:

Q. Now, yesterday in your direct testimony, Mr. Hartl, you were talking about Otter Tail's involvement in the litigation in some of the towns where there has been municipal agitation. Do you recall that testimony?

A. I do not recall my commentary on it yesterday but I am familiar with litigation in the communities we have been discussing and I was, now that you remind me, I recall being specifically questioned on Hankinson who was a plaintiff and who was a defendant.

Q. Do you recall the litigation in Aurora and Colman, and I am specifically referring now to the initiative petition and the subsequent mandamus proceeding?

A. Well, now, which community are you specifically referring to?

Q. Well, let's take Colman, Colman, South Dakota?

A. Yes.

Q. As I recall your testimony yesterday, you indicated that Otter Tail involved itself in litigation when it felt that its corporate interests were served by doing so, is that roughly what you were telling us?

A. I did not use that term, but I believe that the meaning would be generally correct. I had indicated that we [T. VIII, 88] will involve ourselves in litigation if some interest of the Otter Tail Power Company or of the electrical industry was concerned.

Q. You will agree, will you not, that Otter Tail loaned help to the people in the City of Colman who sponsored the initiative petition and who thereafter initiated litigation with reference to that initiative petition?

A. Your question is did we help them?

Q. Yes.

A. Yes.

Q. Now, would you tell me, Mr. Hartl, let me back up. Now, before we get into the initiative petition and the ensuing litigation, as I understand it, there was an earlier round of litigation in the town of Colman, was there not, which went to the Supreme Court of South Dakota?

A. I would have to refresh my mind from the record now, and I believe that's contained in the record already. As to what specific subject of litigation do you have in mind?

Q. I will show you GX-154 which is the decision of the Supreme Court of South Dakota in a case entitled Otter Tail Power Company and Eugene Fritz versus the City of Colman. Does that refresh your memory?

A. If I may examine it to see what the subject matter of the litigation was? Yes.

Q. Eugene Fritz was an Otter Tail employee, was he not?

[T. VIII, 89] A. Yes, he was.

Q. And Duane Westling was an REA employee.

A. Yes. He is a defendant. Okay.

Q. Now, I take it the initiative petition and the ensuing litigation occurred after this litigation was over?

A. I believe that is the chronology.

Q. Well, would you tell me, Mr. Hartl, what corporate purposes Otter Tail was served by the company's involvement in this initiative petition and the litigation which ensued therefrom?

A. Do I understand your question correctly, you are now not speaking of that document you have just shown me, you have gone to some subsequent litigation?

Q. Right. I am talking about the initiative petition and the litigation which ensued when the council did not hold the election as requested in the petition. What corporate purpose of Otter Tail Power Company was served by its involvement in the initiative petition and in the ensuing litigation?

A. The maintenance of the integrity of the investment that Otter Tail Power Company had made in utility facilities in the municipality of Colman.

Q. You had already done that. You had already gone to the Supreme Court on that once, had you not, in effect? The earlier litigation that we just called your attention to [T. VIII, 90] and Otter Tail had already gone to the Supreme Court once on that ground, had it not?

A. On the matter of the procedure, the correct procedure having been followed by the city council or village council of Colman, had they properly given notice of the elections and had the election been conducted properly, that was the subject of that first suit.

Q. Right. And that went all the way to the Supreme Court?

A. Yes.

Q. And the process starts over again with the initiative petition?

A. I don't think the process starts over. Then you get to another point of law.

Q. I see. Well, you and Mr. Field also had a very brief discussion about the litigation in Colman, and you pointed out that Otter Tail Power Company was not a plaintiff in the—I am sorry. Strike that question and I'll start over again. I have trouble keeping all these towns straight.

Talking now about Hankinson. You and Mr. Field had a discussion yesterday about the litigation in Hankinson, do you recall that?

A. We didn't have a discussion. I answered questions that he asked.

Q. Well—and reference was made to a taxpayer's suit [T. VIII, 91] brought against the town involving the municipal power issue, do you recall that?

A. Yes.

Q. Otter Tail was not a plaintiff in that action, was it?

A. It was not a plaintiff, correct.

Q. But Otter Tail did supply the lawyers and money, did it not, to the taxpayers committee?

A. Otter Tail Power Company supplied—paid a part of the fees of the attorneys that the Taxpayers' Association had obtained for their purposes.

Q. Paid what, $1500, is that about it?

A. That is my recollection.

Q. Otter Tail made available the services of its attorneys too, did it not?

A. I am unaware of that, to begin with, Otter Tail does not have any attorneys in the sense of a kept connotation.

Q. Well, moving on to one last area. Are you familiar with the term public utility responsibility, Mr. Hartl?

A. I have been associated with that term through the bulk of my adult life.

Q. Would you tell me how you define that term?

A. The providing to the ultimate customer adequate and reliable utility service at a reasonable rate.

Q. Let me give you an example and we will see how this [T. VIII, 92] policy would apply to it. Suppose you have an Otter Tail retail town, a town the size that would like to establish a municipal power system. Now, assume there is no Bureau power available, assume that there is no long term firm power available from anyone else, coops. Assume that town comes to Otter Tail Power Company and says would you sell us power wholesale? What would you tell them?

A. At the present time under the current policies of Otter Tail Power Company I would say that we are not in the wholesale segment of the utility business and we respectfully decline

to furnish such service unless we can establish between ourselves that it would be to the mutual benefit of both of us to do so.

Q. Well, now, if you made such a sale, it would be at a price which would cover your cost and would give you a fixed rate of return, would it not?

A. Now what sale are we talking about?

Q. A wholesale sale to this hypothetical municipal we are talking about?

A. Under the terms that I just said?

Q. Well, let me just ask a question. Assuming you made a sale to this municipality, the price you would get from that municipality for that sale would cover your costs and would give you a fixed rate of return in addition thereto, would it not?

[T. VIII, 93] A. That if I would make such a sale it should do all of that and it should do some more because I have entered into an arrangement that is potentially, extremely dangerous to the future of Otter Tail Power Company, the long range profitability of the company. That is why I very carefully use the terminology we would enter into such an agreement only if it was to the mutual advantage of both parties.

Q. Well, would you give me an example of the situation where such a wholesale sale would be to the mutual advantage of both parties?

A. At the moment I find it a little difficult to draw you such an example because we do not have one, and we very definitely have stated that we are not searching for such.

Q. Do you know of any other utility, electric utility in the United States which has filed a statement similar to the one that you filed in 1947 with the FPC?

A. I do not.

The Court: I missed the last part of your question. You dropped your voice.

Mr. Anderson: Oh. I asked him whether he knew of any other electric utility in the United States that filed with the FPC a statement comparable to the one that Otter Tail filed in 1947 regarding its policy in wholesale sales.

The Witness: And I said, Your [T. VIII, 94] Honor, I do not know of any other utility that has so done.

Mr. Anderson: That's all I have, Your Honor.

[T. VIII, 95]

REDIRECT EXAMINATION

By Mr. Field:

Q. I will call your attention to a few items on redirect examination.

First, if we can refer to DX-41, that is what has been called the erosion study for identification, anyway, and concerning which you were questioned on cross-examination in several particulars, one of them being the effect of the ten-year period on various figures in the study.

I would like to call your attention or have called to our attention the comparable figures which appear on sheet three and sheet four for 1970, sheet three being the detail of the actual data and sheet four being the detail of the erosion study data with reference to electric retail operating revenues.

Would you do that for us, please?

A. Yes, gladly. Mr. Anderson in his cross-examination of me seemed to be quite concerned that there was as much erosion having taken place as I indicated, that we had assumed had taken place, that I still had as much revenue and as many expenses as I did; and to indicate the workings of approximately a 50 percent erosion, I call to your attention the first

line under operating revenues electric on page three, where, for the year 1970, the retail revenues were 31' million plus. Then turning to the [T. VIII, 96] similar figure on page four, after ten years of erosion, that figure is only 15 million plus.

I call that to the attention of the Court just to indicate the workings of our erosion assumptions. They applied primarily, in fact almost entirely to the retail rates—retail revenues, rather, whereas some of the other types of revenue were conversely affected.

Q. That illustrates the working of the mathematics that you described in a particular item of statistics?

A. Yes.

Q. Another item that was inquired about in connection with one of your assumptions in making this study related to the assumption that Otter Tail Power Company would be able to retain the ability to borrow at the prime interest rate for short-term borrowing, and I believe you stated that the interest rate of five and a half percent was assumed. Has your attention been called to facts so that you would like to make some correction in that?

A. Yes, I would. Apparently my mind was not alert, one is thinking of a projection some time in the future, and there is no assumption of a figure rate in that study. It is what it was as of that time. This is history, 1961 to 1970. There is no assumption of the rate. The only assumption is that it will still be the prime rate which prevailed at that time, and I can, if the Court has any [T. VIII, 97] interest, I can indicate the fluctuations during that period of time. It went from about four percent to eight and a half percent, and it's back down to five and a half now.

Q. I don't think, unless it is asked for, that we will go into those details. The point I wanted to clarify or have you clarify,

that whatever the prime rate was, for example in 1961, it was assumed it would remain the same?

A. Yes.

Q. And so on for each year?

A. Yes.

Q. On cross-examination, counsel inquired about the situation at Velva, North Dakota, and asked a question with reference to Velva having available another source of power other than Otter Tail and means of delivering of power to Velva other than Otter Tail facilities.

Can you tell us what that source of power was both as to the source and the wheeling arrangement to serve Velva that was involved in the proposed municipal plant at Velva?

A. The engineering study developed for the proponents of municipal power in the community of Velva indicated that the source of power for the proposed municipal system would be the Basin Electric Cooperative and the energy would be wheeled over the lines of the Verendrye Electric Cooperative. Both of those are REA cooperatives.

(Defendant's Exhibit 88 marked for identification.)

[T. VIII, 98] By Mr. Field:

Q. I have had marked as Defendant's Exhibit 88, the study that you just mentioned. There are two places in the report that I would like to refer you to.

The first one is on page 17. That refers to the subject matter we have been discussing. It's only three lines—

Mr. Field: I guess I should offer this in evidence if I am going to have him read from it.

The Court: Absent objection, Exhibit 88 may be received.

(Defendant's Exhibit 88 offered and received in evidence.)

By Mr. Field:

Q. Would you read the part that I am pointing to, and this is the Velva Feasibility Study.

A. "All electric energy will be purchased from Basin Electric Cooperative, Inc. Verendrye Electric will wheel same to a substation via existing 41.6 kv transmission line."

Q. Then on page three, paragraph 8, is there a reference to the same subject matter, without the necessity of reading the whole thing?

A. Yes, there is the same source of energy and the same wheeling agent.

Q. Is there also added there the wholesale rate for [T. VIII, 99] Basin?

A. Yes, there is.

Q. Does this also have a bearing upon the subject matter inquired of in cross-examination as to whether Basin Electric Cooperative sold power to municipalities?

A. Directly, yes.

Mr. Field: Mr. L[illegible]een called my attention to the fact that we have used a DX number now which will be used for another number later, an exhibit that we haven't offered yet. If we could now number subsequent to those numbers it would facilitate it so that we don't have to change all the numbers.

Could we have this re-marked as 88 instead of the number it has been given?

The Court: You may.

(Defendant's Exhibit 42 re-marked as Defendant's Exhibit 88.)

By Mr. Field:

Q. Also, the subject of source of power was gone into on cross-examination, and particularly the Basin Electric Cooperative, the question was asked of you if you subscribed to a statement made by another witness that Basin didn't sell to

municipalities. Addressing yourself to that general situation, do you have any knowledge of distribution cooperatives to whom Basin supplies power, supplying power to [T. VIII, 100] municipalities?

A. Yes, I do.

Q. Can you tell us what municipalities there are that are supplied with electricity through distribution cooperatives that are, in turn, supplied by Basin?

A. To my knowledge, in the state of South Dakota are the two communities that have left Otter Tail, Colman and Aurora. There is the municipal operation at Elk Point, South Dakota, and the municipal operation at Gregory, South Dakota, served by distribution cooperatives which, in turn, have as their power supplier, at least in part, Basin Electric Cooperative. In the State of North Dakota, the community—strike that—the municipal operation of Maddock, North Dakota, is served directly by Baker Cooperative, which is a distribution cooperative, a member of Central Electric Cooperative, which is, in turn, a member of Basin Electric Cooperative.

Q. Leaving Basin Electric Cooperative for the moment, do you have information of other cooperatives that are in the Northwest area serving municipalities?

A. Yes, there are many such municipal operations being served in the State of Minnesota by cooperative suppliers.

Q. And you can furnish those names if they are requested, can you?

[T. VIII, 101] A. Yes.

Q. When you speak of many, and to shorten this up as much as possible at this stage, about how many municipalities can you supply the names of if it is suggested that you do?

A. Approximately 20.

Q. Coming, then, to Britton, South Dakota, which was also part of your cross-examination—before I get to that main item, I want to inquire with reference to Britton, you related somewhat the subject matter we just talked about and you mentioned the other day one Art Jones appearing before the city council and mentioned him as being an officer of East River, I believe you said. Is he also an officer of Basin, or do you know?

A. To the best of my knowledge, he is listed as president of Basin Electric Cooperative.

Q. Now, if you will refer to GX-65, GX-65 is the contract between Otter Tail and East River Electric Cooperative, and if I can try to shorten this up by referring to the cross-examination with reference to that contract, as I recall it, the question was whether some provision in that contract inhibited East River from serving Britton, and I believe that was the direct question, but perhaps it had a broader scope.

Have you examined that situation since those [T. VIII, 102] questions were asked of you, and I guess I am not asking you to make any change in your testimony, but can you add to it?

A. The questions of me relative to GX-65 by Mr. Anderson left the inference that paragraph 14 of the appended form 842 precluded a connection or the serving of the community of Britton by East River Cooperative. What Mr. Anderson fails to appreciate is that the appended form 842 that he inquired about specifically limits the context of that paragraph 14 to one connection in the vicinity of Hillhead, South Dakota.

Q. I take it, then, the contract presents no contractual inhibition against East River serving Britton?

A. Not insofar as I am able to interpret that contract.

Q. There has been some interrogation about the sale or furnishing of the distribution properties of Otter Tail to a town that wishes to leave Otter Tail and set up its own municipal system, and I believe you have told us that Otter Tail doesn't choose to furnish its own facilities to assist in that process, but in connection with that subject matter, has there been any example of any municipality attempting to or actually condemning your properties within the towns?

A. There has never been an example of that, an [T. VIII, 103] instance of that since I have been associated with the Otter Tail Power Company, or to the best of my knowledge within the history of the company, however, in every one of the three states in which we operate, municipalities have the right under the designated process of law, to take our distribution properties for their own use and if they similarly want to actually acquire our distribution system, I would think that they would have availed themselves of that ability.

As an analogy, I indicate in our normal operations there are many landowners that say we do not desire to sell you a right-of-way over our land and yet if we determine that it is necessary for utility reasons to have that particular right-of-way, we will engage in a condemnation proceedings because we are sincere in wanting to obtain that right-of-way, to purchase that right-of-way.

That same thing has never been done relative to any of our distribution systems.

Q. Reference has been made to Manitoba Hydro Power and Energy in your cross-examination, and in connection with that subject matter I call your attention to GX-441 which is the annual report of Otter Tail to the Federal Power Commission, FPC Form No. 1, for the year 1970?

A. I have it.

Q. You have that in front of you?

[T. VIII, 104] A. Yes.

Mr. Field: Do you have yours?

Mr. Anderson: That's all right.

By Mr. Field:

Q. On pages 422 and 423 of that exhibit are the purchases from Manitoba Hydro listed?

A. Yes, they are. The last three lines designating, "Purchased from," and so on across the pages, the pages that are shown, those two pages of that report.

Q. Take them a line at a time. I would like to have you tell us what type of power is being purchased and the amount of it?

A. Starting with line 25 at the extreme left of page 422 reads Manitoba Hydro and the statistical classification is another type of supplier, and then the Federal Power Commission schedule number is given, and then some page references pertinent to the question. Over on page 423 is indicated the type of power, type M power, 1,862,000 kilowatt hours, and the energy charges for that were $3,724 which calculates out at two mills per kilowatt hour.

Q. Can I stop you there for a moment and can you tell us what type M power is?

A. Type M power within the context of our agreement with Manitoba Hydro is dump power at off peak hours of the [T. VIII, 105] day. To put this in context, this is the kind of power that we can get from 2:00 o'clock in the morning until 5:00 o'clock in the morning.

Q. Now, take the next line and if you can just briefly describe what type of service and so forth is involved?

A. The next line is captioned, "Scheduled Outage," and there were 790,000 kilowatt hours sold for a revenue of $5,530

and that produces a revenue per kilowatt hour of seven mills per kilowatt hour.

Q. What is the significance of scheduled outages, a description or classification?

A. A scheduled outage is that classification which is exchanged as between parties to take the place of energy that they would have provided from their own facilities if they were not out of service for scheduled overhaul or some other reason predetermined that as of a certain date those facilities would not be in operation.

Q. Is that an ancillary service that utilities provide for each other where it's available these days?

A. Yes, it is.

Q. Now, take the third and last line.

A. The third is designated as operational control, 873,000 kilowatt hours, revenue production $2,612 or three mills per kilowatt hour.

[T. VIII, 106] Q. What type of service is operational?

A. Operational control is that energy that is used within the system for actual control of the system. The operation of switches and things of that nature.

Q. I see. Is that the extent of the Manitoba Hydro transactions of that year?

A. Yes. The entire thing amounts to about $11,000 and averages considerably more than two mills per kilowatt hour.

Q. Now, on cross-examination reference was made to the special municipal electric service agreements, and inquiry was made as to whether they required the approval of the Bureau of Reclamation or the Department of the Interior, and I believe your answer was in the negative, they were tied in with the Bureau-Otter Tail contract as the basic contract, but I would like to ask you this with reference to those special mu-

nicipal electric service agreements between Otter Tail and the respective municipalities. Were they and are they filed with the Federal Power Commission?

A. Each one of those has been filed with the Federal Power Commission.

Mr. Field: May we have just a moment, Your Honor?

[T. VIII, 107] By Mr. Field:

Q. Cross examination was directed towards the North Central Power Study and some of the progress reports, and in connection with that the status of the studies with reference to adding hydro capacity to the main stem dams of the Missouri River was inquired into. Do you know what the status of those studies are at this time?

A. As I indicated in response to Mr. Anderson, I cannot subscribe to his conclusion or his assumption that that is a closed issue; that in fact the language in the paper that he showed me indicates that it might be considered in other phases of this study, and further, witness Trommershausen, witness for the government, in his testimony last Monday indicated that the Corps of Engineers was independently going ahead with a study of such additions.

Q. And as I recall it, reference was made to appropriations by Congress for the Corps of Engineers to make such a study, do you recall that?

A. There was reference made to it. I do not know the detailed amounts or any such thing.

Q. You said that was reflected in the part that Mr. Anderson called attention to. Could you call that part to our attention now? This is DX-24 page 14, and I believe the pertinent part is the last sentence of the top paragraph?

A. "If some sites prove economically feasible they [T. VIII, 108] could be considered in subsequent phases of the In CPS."

Q. I guess I should have asked you to read the preceding sentence too. I didn't see there were two sentences there.

A. "The Corps of Engineers has not made studies to determine what the costs would be at each site," and then follows the other quote.

Q. It's been suggested I should inquire in one other area with reference to DX-41, that's the erosion study, if you will refer to that again.

Cross examination was directed towards the general subject matter of the level of expense for operation and maintenance in the erosion study, with a particular reference to some question about why it didn't decline more than the study shows, and you pointed out that the mathematics of the study brought out these results. I would like to ask you some general questions that may assist in understanding that situation.

First with reference to one of the footnotes that Mr. Anderson inquired about as to the decrease proportionately in expenses for operation and maintenance, and I believe one of his questions involved the different functions, although I don't think it was pursued to the point where we got any particular information on it, if you would pardon me for saying that, Mr. Anderson.

[T. VIII, 109] Mr. Anderson: That's all right. I thought I was getting into too much detail so I stopped.

By Mr. Field:

Q. Well, do the different functions decrease in the same relationship or proportion or is there more decrease in one function than another?

A. In the development of Exhibit DX-41, proportionately a greater decrease took place in distribution expenses and distribution related expenses rather than in the fields of production or transmission. Transmission, for instance, stayed

virtually unchanged because conditions, the assumptions just did not indicate that any change in costs would be brought about in that function.

Q. They are pretty well locked in, I guess?

A. Yes. If you are still going to be providing some type of service to these communities.

Q. And in connection with generation, I don't want to get into any details as to how much or how, but did that decrease in less proportion to distribution also?

A. I believe that it did. See, the controlling element in production expense would be the fuel charges which are directly related to the kilowatt hours that would be produced in that particular year, and the generator and the boiler do not differentiate between the ultimate destination of that kilowatt hour. They will use the same amount of fuel to [T. VIII, 110] provide that kilowatt hour.

Q. One other detail which I will try to describe appropriately, and then we won't bore into the sophistication of this study any more as far as I am concerned.

In connection with generation and in connection with one of your assumptions that Otter Tail would be able to make increased pool sales, does that involve the use of generation for production and energy for pool sales in a greater quantity than might otherwise be done except for the erosion?

A. Yes, it does.

Q. Why is that just generally?

A. Well, as we had indicated, that the assumption 5 as indicated, that was based on an analysis of pool transactions that I had my staff obtain the data from the participating members of the pool as to what the reaction may have been under the conditions that would be available because we had some capacity that we freed for use and the end result of that

study which, incidentally it doesn't make it any better, makes it faster, is a computerized program in our company, and the determination was made that X number of kilowatt hours would be sold compared to the number that actually were sold during that decade.

[T. VIII, 111] Q. So the generation facilities would be used in part for that purpose?

A. Right.

Q. As I understand it, Mr. Nye suggests that pool sales are a higher load factor, I guess it is, than sales at retail, so there may be even more kilowatt hours sold because they are sold around the clock, and is that built into this study, too?

A. That is done, because when you can make that type of sale, and that is a type that is looked for, and when you are increasing the load factor of your operation, you are causing a more efficient operation of that utility system.

Q. I guess we have illustrated as much, at least as I care to take the time for, some of the sophisticated parts of the study. You mentioned that it was a detailed study and that there are many more that could be inquired into, I presume?

A. Yes, there are.

Q. Now, referring just a moment to GX-66, which was the 1950 contract between Otter Tail and the Bureau, I believe the record is clear on this but I will ask it to get the chronology here, this GX-66 is the original contract that was the result of the negotiations down to that point?

A. That is the date of the original contract, so I [T. VIII, 112] can only assume that that is the draft that was signed.

Q. And that has been superseded now, of course, by the present effective contract which is dated in 1955?

A. Right.

Q. Now, in the original contract, your attention was called to Section 16a on page 15 and 16, and you were asked to sum-

marize or give in a nutshell the provisions of that section with reference to the limitations on the granting of license to use Otter Tail's lines by the United States, and you mentioned the 50-mile radii limitation to points of intersection, which is on page 15.

I call your attention to an additional provision in the latter part of that section on page 16, and ask you to refer to that so the record is complete in that regard.

A. I do not have a copy, but that is the section that pertains to a size of load below which the contract does not apply.

Q. I am sorry that I asked you a question and didn't furnish you with the equipment to answer it.

A. That paragraph further provides that it does not extend to the United States the right to transmit power and energy to individual loads of less than 100 kilowatts or less than 500 kilowatts if located in or adjacent to a community of over 2,500 population.

Q. So that in connection with your previous testimony, [T. VIII, 113] and, of course, as more specifically appears from the exhibit itself, it illustrates the status of the resolving of the negotiations as of that time?

A. And it indicates the many manners, if there is such a word, in which an attempt was made to resolve the problems of the parties.

Q. Is this true, then, that the language which finally resulted in the 1955 contract which is now in effect went through several drafts and considerations by the parties mutually?

A. That is very correct. It was a continuous evolving process and that process is continuing, Mr. Field.

* * * * *

The Court: Gentlemen, one of our reporters, Earl Anderson, not the one who is here but the other one, has a daughter who is graduating from high school at 6:00 o'clock tonight over in Golden Valley, and he would like to be attentive to that. I told him I thought you would all want to be. He said that if we recessed at 4:30 he could get there on time.

Mr. Field: That is fine.

Mr. Anderson: That is fine.

The Court: Are we about on schedule as you all planned it?

Mr. Anderson: Pretty good. I was hoping we could leave Friday night, and, as a matter of [T. VIII, 114] fact, I wanted to bet Mr. Lundeen a dollar we could do it, but it doesn't look like we are going to make it.

Mr. Lundeen: I will take the bet.

The Court: We will be through by Monday or Tuesday, I would gather?

Mr. Field: It looks that way to me, Your Honor.

The Court: See you at 10:00 tomorrow morning, gentlemen.

(Whereupon, an adjournment was taken until 10:00 o'clock A.M. June 11, 1971.)

[T. IX, 1]

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
SIXTH DIVISION
(Title Omitted in Printing)

The above entitled matter came on for trial before the Honorable Edward J. Devitt, Chief Judge of the above Court, at Saint Paul, Minnesota, on June 1, 1971, commencing at 10:00 o'clock A. M.

The following transcript contains the proceedings had on June 11, 1971.

(Appearances Omitted in Printing)

[T. IX, 2] (June 11, 1971)

The Court: Good morning, gentlemen.

I believe you were examining, were you, Mr. Field?

Mr. Field: Yes. We are just about through. There are two or three items that we have to pick up this morning, and then we will be through.

Whereupon,

ALBERT V. HARTL,

having been previously sworn, resumed the stand and testified further as follows:

REDIRECT EXAMINATION
(Continued)

By Mr. Field:

Q. First again referring briefly to GX-444, which, for the record, is the appearance of Mr. Hartl before the Appropriations Committee in 1951-1952 appears at the top of the page, but the hearings were in 1951, I believe, and you were asked, Mr. Hartl, on cross-examination with reference to this appearance before the Committee.

I would like to ask you to tell us about or enlarge upon the context in which these hearings were held.

Could you respond to that question?

A. Yes. These hearings involved relationships between rural electric cooperatives and investor-owner utilities in Western Minnesota, exclusively. The entire [T. IX, 3] context of this hearing related to appropriations for an REA line and in no manner was the matter of wholesale service to municipalities considered. Wheeling was a term unheard of 20 years

ago in this part of the country, and therefore, it should be understood that any remarks that I may have made 20 years ago at this hearing were in the context of consideration of appropriations for rural electric cooperative desired line of the Bureau of Reclamation.

Q. And specifically, was there anything in the context of this hearing that involved the problem we have today that we have been talking about in this case, namely, the changing of any retail towns served by Otter Tail to another supplier?

A. There was absolutely nothing involved in this hearing relative to that matter.

Q. Now, again referring to GX-83, GX-83, for the record, is the FPC wholesale electric schedule of Otter Tail Power Company, which represents a filing in 1947 and which has been referred to previously in testimony.

Mr. Field: Now, if I may have this marked as an exhibit with a number that followed the last one yesterday and leaving room for the ones that are coming.

(Defendant's Exhibit 89 marked for identification.)

[T. IX, 4] By Mr. Field:

Q. Defendant's Exhibit 89 is a document, I believe, that Mr. Anderson referred to in cross-examining you, but it wasn't identified as an exhibit.

Do you recognize it as such?

A. Yes, I recognize that document because he called my attention to a page in it.

Q. I believe it was a list of REA cooperatives, just to get the context?

A. Yes.

Mr. Field: I will offer Exhibit 89.

Mr. Anderson: No objection. As a matter of fact, we were a little disturbed last night that we hadn't offered it yesterday.

The Court: It may be received.

(Defendant's Exhibit 89 offered and received in evidence.)

By Mr. Field:

Q. Now, Exhibit 89, for the record, generally, is what, if I can ask you to describe it instead of my attempting to describe it?

A. Exhibit 89 is a compilation of material, the bulk of which pertains to a wholesale rate case involving the wholesale rates of Otter Tail Power Company before the Federal Power Commission. It contains the order of the [T. IX, 5] Federal Power Commission in this particular case, approving the rate filings of Otter Tail Power Company, and indicating that a hearing had been had on the merits of the application.

There is also contained an appendix that lists all the wholesale customers of Otter Tail as of the time of the hearing and order.

Q. Getting ourselves oriented as to dates, this represents, does it, a rate filing of 1949, two years after the rate filing that is represented by GX-83?

A. That is correct.

Q. And did the rate filing in 1949, which is represented by the proceedings in Defendant's Exhibit 89, represent an increase in the wholesale level of rates that was referred to yesterday?

A. Yes, it does.

Q. And did that precipitate the hearings before the Federal Power Commission because certain objections had been made to that increase in rates?

A. That is the context of the order for hearing of the Federal Power Commission.

Q. Now, specifically, I will ask you this, if the general statement of the company's policies and practices, which is

the third sheet in GX-83, and which we discussed previously, is also included in the 1949 filing of rates which is represented by Defendant's Exhibit 89?

[T. IX, 6] A. Yes. As one of the sheets in Defendant's Exhibit 89, there is contained the same statement of the company's policies and practices.

Q. For context in the record, and don't read it, but just for context in the record, what policy is referred to?

A. The policy referred to is that Otter Tail furnishes electric service at wholesale only on an incidental and limited basis and limited to those wholesale purchasers with whom the company has contracted for such service, and does not hold itself out generally to provide wholesale service.

Q. Then the 1949 filing which was the subject of this contested hearing included, among other sheets, the sheet with that statement of policy on it, did it?

A. Right.

Q. There was an active contested hearing conducted as a result of this Exhibit 89 proceeding, as represented by this exhibit?

A. There certainly was.

Q. I guess you have already told us the final result of that hearing was the approval of the rate filings, is that correct?

A. Yes.

Q. Now, referring to the sheet which is page three of Defendant's Exhibit 89, which Mr. Anderson called your special attention to, on that page there is a list of REA [T. IX, 7] cooperatives and a list of municipalities, and then one under the label of "other wholesale."

Directing your attention, first, to the group of REA cooperatives which was inquired about directly on cross-examina-

tion, what happened after 1949 to the REA cooperative loads that are represented by this list?

A. Over a period of time, all of the cooperatives on that list left Otter Tail Power Company for some other source of supply for their electric energy.

Q. Mr. Anderson inquired particularly about Northern States Power Company taking over at least some of them. I think the inference was left that they took over all of them. Is that the situation?

A. That was not the situation. The cooperatives in what is now CPA territory and our territory were taken over by Northern States Power Company. Cooperatives to the north of Fergus Falls tended to be taken over by Minnesota Power Cooperative. Cooperatives in North Dakota tended to be taken over by Central Electric Cooperative.

Q. In any event, they are all gone, as far as Otter Tail is concerned?

A. That is correct.

Q. Coming to the list of municipalities which follows on this same page three of Defendant's Exhibit 89, can you tell us the situation as to what happened, if [T. IX, 8] anything, on the loads represented by those municipalities after this 1949 filing?

A. After the 1949 rate filing, and subsequent approval by the Federal Power Commission, all of the municipalities listed on that page three left Otter Tail with the exception—no, they all left Otter Tail as wholesale customers and went to some other source of supply, with the exception of the City of Fergus Falls, Minnesota, and the City of Wilton or the Village of Wilton, Minnesota, which subsequently ceased receiving wholesale service and became retail customers of Otter Tail Power Company.

Q. Is there one other municipality that needs comment, namely, the Village of Bagley?

A. Yes, all of the others left us and became customers of the Bureau of Reclamation. The Village of Bagley, the first there listed, is now a customer of the Clearwater-Polk REA Cooperative.

Q. Is Bagley within the marketing area of the Bureau of Reclamation?

A. Bagley is the only community on that list that is not within the marketing area of the Bureau of Reclamation.

Q. I guess we have covered the municipalities, have we, as to what the situation is today?

A. Yes.

Q. And what has happened since 1949?

[T. IX, 9] A. Yes.

Q. Coming to the last item on the page labeled with the heading of "Other Wholesale" and then underneath that "Farmer's Elevator Company," what load does that refer to and what has happened to it since 1949?

A. Farmers Elevator Company was a private utility serving the communities of Arthur and Hunter, North Dakota.

Q. I believe you mentioned that the other day in connection with some other interrogation and we don't need to repeat that material, but just briefly, what happened to that load?

A. That load has left Otter Tail Power Company as a wholesale customer and has been taken over by the Cass County Electric Cooperative.

Q. Mr. Anderson yesterday was inquiring about loads that had left Otter Tail Power Company over the past 25 years. I presume these should be added to the list, should they?

A. Yes. If one is measuring erosion that has taken place of the Otter Tail System, that page three of Exhibit 89 demon-

states that 21 cooperative wholesale customers, 14 municipalities and one private utility have been eroded from the Otter Tail system by the Federal government or some federally financed agency offering energy to those distributors at what I term an underpriced level.

Mr. Field: That is all the redirect, Your Honor.

[T. IX, 10] Mr. Anderson: I have just a few.

RECROSS-EXAMINATION

By Mr. Anderson:

Q. Now, yesterday in your redirect, Mr. Field was asking you some questions about the supply of power to the utilities of Aurora and Colman, South Dakota, and one would get the impression that that power was at least in part being produced by Basin Electric Company from your answers, but that's not true, is it; all that power is coming from the Bureau of Reclamation?

A. Not—that is not my understanding. If I left the inference some of it comes from Basin, that is a correct inference to draw inasmuch as Basin Electric Cooperative is a power supplier to the Bureau of Reclamation.

Q. But there is no contractual relationship between either of those towns and Basin Electric for the supply of power, is there?

A. Not that I am aware of.

Q. All their power comes by virtue of their being full requirements customers of the Bureau of Reclamation, isn't that true, those two towns?

A. They are customers of the Bureau of Reclamation.

Q. And the role of East River and Sioux Valley is simply to wheel the power to the town, isn't that true, to each of those towns?

[T. IX, 11] A. Which they in turn have obtained from the Bureau of Reclamation.

Q. Right.

A. Which in part obtained that energy from Basin Electric Cooperative.

Q. How much generating capacity does East River Cooperative have?

A. I do not believe they have any.

Q. They don't have any power at all, do they?

A. If they have it, I do not know where it is.

Q. So in talking about—well, strike that. East River gets its power from two sources as I understand it, correct me if I am wrong, Bureau of Reclamation and Basin Electric Company?

A. That is my understanding.

Q. Now, you also mention the town of Maddock, North Dakota, that's another town which gets its power at wholesale from the Bureau, isn't that true?

A. Correct.

Q. And from the coop's role there parallels the role of the coops with respect to Colman and Aurora, namely, it wheels the power, the Bureau, to the town, isn't that true?

A. Yes.

Q. The coop doesn't sell any power at wholesale, does it?

A. I would like to check the record on that. I [T. IX, 12] believe my testimony will show, Mr. Anderson, that Maddock is a direct customer of Baker Electric Cooperative which is a distribution cooperative in that area.

Q. Is it a wheeling customer or a wholesale customer?

A. It is a wholesale customer. We are actually quibbling about words now, that Baker Electric Cooperative gets its energy fundamentally from the Bureau of Reclamation

through two layers of G and T cooperatives, but the community of Maddock is a customer of the Baker Cooperative.

Q. Now, both in your direct and redirect over my objection on the grounds of hearsay you pointed out that you had information that a Mr. Arthur Jones had appeared at a city council meeting in Britton, South Dakota for the purpose of advising the city council that should it decide to establish a municipal power system that, I think you said it was Basin, would take care of the supply problems, power supply problems for the town, you recall that testimony?

A. My recollection of my testimony was he said "and get your supply from the Bureau of Reclamation and Basin will back it up."

Q. What evidence do you have that Mr. Arthur Jones ever attended that meeting?

A. Just the veracity and the confidence that I have in the —of my own managers in the field that report back.

Q. Well, I just like the record to show that I have [T. IX, 13] the information that he never attended that meeting and never made those statements, but that's not evidence.

Now, one last question here. You were speaking with Mr. Field a few moments ago about the number of towns that have left Otter Tail over the past 25 years, and you called attention to a group of nine towns, among others, nine retail towns which had left. Just for the sake of clarity here, I am talking about GX number 2 and the list of towns contained on page 3 thereof. There are the answers to the interrogatories.

A. Yes.

Q. Now, I think we can agree, can we not, that of the nine towns listed there, six of those towns left Otter Tail with Otter Tail's approval and acquiescence, Otter Tail put up no struggle to keep those towns at all?

A. I would violently disagree with that answer insofar as Sanish and VanHook are concerned.

Q. What did you do there?

A. Pardon?

Q. What did you do there?

A. We didn't do anything. The communities were inundated by what is now known as the Garrison Reservoir and consolidated into a new town which Otter Tail extended its service to, in fact, didn't have to extend it, New Town was on the route of the existing line that served Sanish and VanHook, and Otter Tail proceeded to serve the initial [T. IX, 14] customers of New Town and a rural electric cooperative then proceeded to take over the community to the point that the customers moved over from Sanish and VanHook to form this new community and we were there ready and willing and able to serve them and did serve the original ones, but we were eliminated by the competition of a rural electric cooperative.

Q. Well, one little matter for curiosity. About how many people live in New Town?

A. Inasmuch as that is not one of our communities, I would estimate that New Town is a community of between 600 and 800 people.

Q. Now, calling attention to one other matter that you covered in your redirect and referring specifically to your discussion or your testimony concerning GX-65 which is the contract between East River and Otter Tail Power Company, and I ask—Mr. Field asked you as follows, I quote, "I take it then the contract presents no contractual inhibition against East River serving Britton?

Answer "Not insofar as I am able to interpret that contract."

I am not clear, Mr. Hartl, just where that leaves you. Are you willing to state on the record that that contract in no way impedes East River from rendering service to Britton, Britton being a town which Otter Tail currently serves at retail?

[T. IX, 15] A. That particular exhibit with attachments pertains to an interconnection which is described legally in that document, and I refer to it geographically as being near the town of Hillhead, South Dakota, and it applies only to the facility at Hillhead, South Dakota.

Q. It also talks about the substation at Britton, does it not, the basic contract?

A. May I see the exhibit?

Q. I am sorry.

A. Would you point out to me where it speaks of the Britton substation?

Q. Right here. Whether you call it a substation or what you call it, but it is an interconnection, and I assume the interconnection occurred at the substation in Britton. Right here on page 1 it says, "Whereas the parties desire to establish an interconnection between their electric transmission systems in the vicinity of Britton, South Dakota herein known as the Britton interconnection." You see that on page 1?

And on page 2 there is another reference here to the connection of facilities at Britton at that point of interconnection. Here it talks about the substation.

A. Yes, Mr. Anderson, if a mere connection is synonymous with a substation, which I do not concede, but your further inquiry of me as to any limiting provisions, the paragraph 14 is this appendix to the contract, and that this appendix [T. IX, 16] is self-contained, and the paragraph 14 applies only to the description of the connection in paragraph 2.

Q. How about paragraph number 9 on page 4 of the basic agreement which has to do with that? The title of that paragraph 9 is "Common Carrier."

A. That contains a standard statement of Otter Tail Power Company that it does not hold itself out as a common carrier.

Q. That applies to the whole contract?

A. Yes. That is in the basic contract.

Q. So I guess the upshot of all this is that in your opinion there is no legal inhibition upon East River by virtue of this contract on them serving, and delivering power to the town of Britton?

A. That is my layman's interpretation of that document. I am not an attorney.

Q. All right.

Mr. Anderson: That's all I have, Mr. Hartl. Thank you.

REDIRECT EXAMINATION

By Mr. Field:

Q. Just one question of incidental interest in the Sanish and VanHook, the residents moved to a new town, is that actually the name of the town, too?

A. Yes, it is.

[T. IX, 17] Q. New Town?

A. New Town, North Dakota.

Mr. Field: That's all.

The Court: You may step down, Mr. Hartl.

Mr. Field: Just a minute. My associate suggests something.

By Mr. Field:

Q. There is one other item, the record is probably clear on it, but I believe Mr. Anderson's question concerns the function of Sioux Valley at Aurora and Colman was confined to wheel-

ing. They do perform other duties in the way of maintenance and operation of those municipal systems, and I believe the record contains the agreement that so provides, are you familiar with that?

A. It is my understanding that both of those municipal operations have entered into an operation and maintenance agreement with Sioux Valley Empire Association so the cooperative actually operates and maintains the system.

Mr. Field: That's all we have.

Mr. Anderson: I have nothing further.

The Court: You may step down. Thank you, Mr. Hartl.

(Witness excused.)

[T. IX, 18] Mr. Field: At this time, Your Honor, we would like to offer in evidence the additional documents that I have referred to previously, filling out, from our standpoint, at least, the documentation of the cases that have been referred to in the area of litigation. They have been marked as DX Exhibits 42 through 87.

DX-42 has three subdivisions, A, B and C, but DX-42 is the main identification.

DX-87 is the list itself of those exhibits, which has been furnished to counsel. One of the reasons that the list itself has been marked as an exhibit is that it incorporates by reference some of the files of this Court, some of the cases referred to, and some decisions that are in the Reporter System, and so forth, as described in the listing.

The Court: Absent objection, Defendant's Exhibits 42 through 87 may be received.

Mr. Anderson: No objection.

The Court: They may be received.

(Defendant's Exhibits 42 through 87 offered and received in evidence.)

Mr. Field: Is Your Honor interested in seeing the list?

The Court: Yes, please.

[T. IX, 19] Mr. Field: Should I proceed with some other details here, Your Honor?

The Court: Yes, you may.

Mr. Field: We now ask to have marked as an exhibit the 1969 Annual Statistics Report of the United States Department of Agriculture, Rural Electrification Administration, which we have previously talked about in connection with its being offered at this time.

We offer in evidence Defendant's Exhibit 90.

Mr. Anderson: No objection.

The Court: It may be received.

(Defendant's Exhibit 90 offered and received in evidence.)

[T. IX, 20] Mr. Field: The defendant will call as its next witness, Warren Nye.

Whereupon,

WARREN NYE,

a witness called by and on behalf of the defendant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Field:

Q. Would you state your name and address for the record, please?

A. Warren Nye, Fergus Falls, Minnesota.

Q. And you are employed by Otter Tail Power Company, are you not?

A. Yes, I am.

Q. What is your present position with Otter Tail Power Company?

A. I am Vice-President, Electrical with Otter Tail Power Company.

Q. Would you briefly tell us your background, educational and experience, in the field in which you are engaged?

A. I started working for Otter Tail Power Company as a meter tester in 1934, 37 years ago.

I graduated from the State School of Science at [T. IX, 21] Wahpeton, North Dakota. I was a meter tester and electric serviceman involving regulating and control equipment until 1942, when I was appointed superintendent of the meter department, in charge of the meter department for Otter Tail Power Company.

In 1945 I was appointed general construction superintendent in charge of the construction and maintenance of the electric lines of the company.

In 1948 I was named electrical engineer for the company, a position I held until I was named manager of transmission and distribution in 1956.

In 1958 I was elected to my present position, Vice-President of Electrical.

Q. What area of responsibility do you have in your present position with the company?

A. I have general responsibility and am in charge of the planning, design, construction, operation and maintenance of all the electric lines of Otter Tail Power Company.

Q. And, of course, you are familiar with all of the lines of the company in its service area?

A. Yes, I am.

Q. Are you also familiar with, generally familiar with the lines of other suppliers in that area and adjacent to it?

[T. IX, 22] A. Yes, I am.

Q. And are you familiar with the interconnections that Otter Tail Power Company has with other suppliers that have been referred to by other witnesses in the case?

A. Yes, I am.

Q. And are you familiar with the interconnections and operations under the Upper Mississippi Valley Power Pool that has been referred to by other witnesses?

A. Yes, I am.

Q. Do you have any responsibility in your present position in the negotiation of contracts that involve the area of interconnections, and so forth?

A. Yes, that is included within my scope.

Q. For how long a time has that been one of your responsibilities, since your election as Vice-President of Electrical?

A. Yes, that is it, when I was elected Vice-President of Electrical.

Mr. Field: Now, if the Court please, and counsel, and the witness, Mr. Nye, perhaps I can indulge in this statement.

I expect to present Mr. Nye's direct testimony in three main phases.

The first phase will relate to testimony which we think will prove Otter Tail is not a [T. IX, 23] dominant factor in the transmission of electric energy in this area.

The second phase of his testimony will relate to a relevant market study and an exhibit in connection therewith.

The third phase will, I hope, pick up some odds and ends that this witness knows about and which he can add some information on, mostly on items that already have been mentioned.

Coming first to the first phase of the position of Otter Tail Power Company, so far as it being one of dominance in the transmission of electric power in the area, I would like first to refer to GX-2, which is the answers to interrogatories.

Do you have a copy of that?

The Witness: Yes, I do.

Mr. Field: Perhaps the original is available for the Court.

By Mr. Field:

Q. I would like to refer to the answer to Interrogatory No. 8 and the answer to Interrogatory No. 9 which occur on pages six and seven of this document.

Calling your attention, first, to the answer to Interrogatory No. 8, generally, what is that, Mr. Nye?

A. The response to Interrogatory No. 8 is a statement [T. IX, 24] of the number of transmission lines owned by the Otter Tail Power Company, divided into voltage classifications, giving the mileage by each voltage classification and the total mileage.

Q. And that develops transmission lines of what voltages which Otter Tail Power Company has in its system?

A. All the way from 230 kv, as the highest voltage, down to 2.4 kv.

Q. I believe this data was related to a certain date in the interrogatories, and perhaps we should get that date established.

A. This date is as of December 31, 1968.

[T. IX, 25] Q. I see it's right there?

A. Yes. This is the same data as we filed with the Federal Power Commission in our FPC 1 report.

Q. And I presume for the purposes of clarity, there have been some changes or additions since that time, you don't stand still in this business?

A. That is correct.

Q. Perhaps they aren't major enough to substantially affect the total?

A. No. I'd say they are very minor. This is substantially our present system.

Q. You can give the details of what changes have been made if it's desired by anyone, can't you?

A. Yes. That data is in an exhibit on record now.

Q. Well, that develops a total mileage of Otter Tail's lines in response to this interrogatory of 5,962 miles?

A. That is correct.

Q. Now, calling attention to Interrogatory Number 9, will you state generally what is given in that answer?

A. The response to Interrogatory Number 9 lists the electric suppliers that have power lines which traverse or are proximate to Otter Tail's service area.

Q. They are divided into groups, are they, as shown here?

A. Yes, they are.

[T. IX, 26] Q. Now, the Interrogatory didn't ask for the extent of these lines but have you computed the extent of the lines of these other suppliers in this area?

A. Yes, I have.

Q. And have you done that by making notations of mileage on a reproduction of this answer to Interrogatory Number 9?

A. Yes, I have.

Q. Perhaps the shortest way in point of time to present that material would be to mark it as an exhibit, the reproduction of these pages that has this data on it that you have computed. Do we have those available or do you?

Mr. Field: May we have this document marked then as an exhibit.

(Defendant's Exhibit 91 marked for identification.)

By Mr. Field:

Q. Now, I believe the typewritten material on Defendant's Exhibit 91 is just a Xerox copy of these same pages 6 and 7 taken out of GX-2, that's true, isn't it?

A. That is correct.

Q. And what have you added to it in general, explain it to us?

A. On the left-hand side of the sheet I have shown the line mileage by each entity, thus, next to United States Bureau of Reclamation is shown the figure 2,028 which is the [T. IX, 27] mileage of the Bureau of Reclamation which traverses or is proximate to Otter Tail's service area.

The same information is given for each of the G and T Cooperatives with a subtotal then of 2,955 miles for the G and T Coöperatives.

For the distribution cooperatives there is a total of 38 and that note is made next to the cooperatives.

Then on the right-hand side of each of the cooperatives is a number which is the Rural Electrification Administration identification number for each cooperative, that is, they are numbered by states. For instance, Runestone Electric Association would be Minnesota 18 in the REA record-keeping system and reporting system.

Then on the left-hand side of the cooperatives is a number which gives the line mileage of each of these cooperatives. That continues on page 7 which gives a subtotal then of 84,707 as the line mileage of the cooperatives.

The line mileage for the municipalities in the three states is also given for a subtotal of 64.

The investor-owned utilities are separately shown too, with a subtotal of 548 miles.

Manitoba Hydro is proximate to Otter Tail Power Company but no line mileage is shown to that. All their lines are outside of the United States.

This gives a total line mileage of 90,302 at the [T. IX, 28] bottom of page 7 for all the other electric suppliers in the area.

Q. Then have you computed the extent of Otter Tail's lines as shown in answer to Interrogatory Number 8 as compared

to the total of all the suppliers in the area which are listed in answer to Interrogatory Number 9, and is that shown on the bottom of page 7?

A. Yes. I have made the calculation and that is shown.

Q. And will you state for the record what that relationship is?

A. Otter Tail Power Company's ownership is 6.2 percent of the total.

Mr. Field: We offer Exhibit 91.

(Defendant's Exhibit 91 offered in evidence.)

The Court: Absent objection it may be received.

Mr. Anderson: I just have a couple voir dire type questions.

The Court: You may.

Mr. Anderson: Now, some of these coop lines, I take it, run outside the Otter Tail service area, don't they?

The Witness: Well, depending on the definition of Otter Tail Power Company's service area, [T. IX, 29] of course, but its proximate to our service area.

Mr. Anderson: Otter Tail may be interconnected with a coop here, Otter Tail system here, coop might have lines shooting over in this direction which is outside the Otter Tail service area, isn't that true?

The Witness: Some of these lines may be farther east than Otter Tail's lines extend, farther south than Otter Tail's lines extend, farther west than Otter Tail's lines extend.

Mr. Anderson: You can't tell from looking at this how many of the miles of lines we are talking about actually within the Otter Tail service area, can you? You just took the total number of lines for each of these coops and just put that figure on the document, isn't that what you did?

The Witness: It can't be determined entirely from this document, no. Other data would be required, other maps. All the cooperatives are named, however, and their service area is definite. It could be determined.

Mr. Anderson: As long as we understand that the miles of lines shown on this document are not necessarily lines that are located within the Otter Tail service area, with that understanding, I have no objection to the document going in.

[T. IX, 30] The Court: It may be received.

(Defendant's Exhibit 91 received in evidence.)

The Court: We will recess for about 10 minutes.

(Recess taken.)

[T. IX, 31] Mr. Anderson: Could I be permitted to ask one question about this DX-91 just marked?

Did you get the information, the mileage figures contained in that document from the statistical information in DX-90?

The Witness: For those listed under cooperatives.

Mr. Anderson: I see.

By Mr. Field:

Q. Just one or two more questions about Defendant's Exhibit 91, and with particular relation to the understanding that Mr. Anderson commented on.

I believe we started out with the list that responded to plaintiff's interrogatories in compiling this data? Am I right there?

A. That is correct.

Q. The interrogatory was asked in this language, to list all electric companies both investor and publicly owned which own transmission lines which traverse or are proximate to Otter Tail's service area, and these that are listed are in response to that?

A. That is correct.

Q. Now, if it is desired to recompute some mileages of some of these cooperatives that have lines that extend perhaps outside of what has been called the service area of [T. IX, 32] Otter Tail Power Company, you do have information available so that that could be done and furnished, in addition to what we have here, do you not?

A. Yes, I have.

Q. The computation hasn't been made, but perhaps we could undertake it during the noon recess and furnish it this afternoon, if we can do it in that length of time?

A. I will try during the noon recess.

Q. Now, I would like to switch our attention to some maps, first, GX-205 and 206 and also GX-439.

Now, GX-205 is the map prepared by the Bureau of Reclamation which has been referred to by other witnesses, just for context, and GX-206 is an enlargement of a certain portion of 205.

Do you remember the references previously in the testimony to these two maps?

A. Yes, I do.

Q. Just to get in perspective for the purpose of your testimony, what general area of voltages are included in the Bureau of Reclamation maps, that is, 205 and 206, particularly with relation to how low a level of voltage the transmission lines are shown on these two exhibits, that is, the Bureau of Reclamation maps?

A. From the explanation in the lower left-hand corner of GX-205, it indicates that the transmission lines are [T. IX, 33] shown down to a level of 69 kv, unless otherwise noted, and there are 41.6 kv and 34.5 kv lines also shown.

Q. And otherwise noted?

A. Yes, they are noted with the voltage adjacent to the line.

Q. I think Mr. Trommershausen helped us out in regard to that. He seemed to agree substantially as far as any amount of transmission lines below the 69 kv, that 41.6 represented the bulk of those that were otherwise noted. Do you agree with him, assuming I have summarized what he told us in that regard?

A. Yes, I do.

Q. Coming now to GX-439, which Mr. Trommershausen also testified concerning, as I recall it, it has been established in the evidence that the lines shown on Exhibit 439 are only Otter Tail Power Company lines, is that correct?

A. Not entirely correct. For instance, Mr. Trommershausen referred to the line between Devils Lake and Langdon, and the north half of that 115 kv line is owned by Minnkota, and then not in Mr. Trommershausen's testimony, but in actual fact, there are segments of the 115 kv and 230 kv lines that are indicated as Otter Tail Power Company ownership, which, in fact, are owned by Cooperative Power Association.

Q. I suppose that is part of the integrated [T. IX, 34] transmission arrangement that is reflected in one of the exhibits that is a contract between Otter Tail and CPA and others?

A. That is correct.

Q. In general, is this true, that with the exceptions you have mentioned, the lines that are shown on GX-439 and intended to be shown as Mr. Trommershausen told us, are the Otter Tail Power Company lines?

A. That is correct.

Q. I think he helped us in pointing out that the legend as to the voltages shown needed some correction in that it indicates that only levels down to 41.6 kv are shown. Will you comment on that feature of it, please?

A. That is incorrect; all voltages down to 41.6 kv are shown, but also, all the lower voltages down to and including 2.4 kv are shown.

Q. Then we reached the point in examining Mr. Trommershausen where I asked him if other lines of similar voltages of other suppliers were superimposed on the map, and he told us they weren't, of course, and that if they were, we could hardly see the background of the map.

Do you remember that part of his testimony?

A. Yes, I do.

Q. Have you prepared for presentation at this trial some maps which are illustrative, at least, of what would be [T. IX, 35] shown if the other lines are superimposed?

A. Yes, I have.

Mr. Field: I will now ask to have marked two maps.

(Defendant's Exhibits 92 and 93 marked for identification.)

Mr. Field: Exhibits 92 and 93 are among the exhibits that were furnished prior to the trial in accordance with the pretrial arrangements. Perhaps it's in order for me to offer them in evidence and then I will inquire about them.

(Defendant's Exhibits 92 and 93 offered in evidence.)

Mr. Anderson: I would just like to ask a couple of brief questions if I could. All these little brown lines here, I take it, are co-op lines?

The Witness: Yes, they are.

Mr. Field: I will go into the whole thing if you want me to, Mr. Anderson.

Mr. Anderson: If you would like to do that before you offer it maybe my questions will be cleared up.

Mr. Field: I can do that. I was under the impression you had conceded the foundation, that's all, in the pretrial exchange.

[T. IX, 36] Mr. Anderson: I concede he prepared the document. I had some questions I was going to ask before you put it in.

By Mr. Field:

Q. Well, let's take Defendant's Exhibit 92 and tell us generally what is shown on the exhibit, Mr. Nye?

A. Defendant's Exhibit 92 shows the area around Brookings, South Dakota and the locations identified in the legend in the lower left-hand corner of the print are the electric lines and parts of Kingsbury, Moody, Lake and Brookings Counties in South Dakota.

Represented on the print are geographic and other features such as the railroads, the section lines, the cities and the villages in the area, geographic features such as lakes and rivers, and then the electric lines are shown by the legend in the lower left-hand corner giving the different ownerships by color and the different voltages in general by the width of the line to indicate the power line.

Q. Could you take the colors and just tell us briefly what the different colors represent as far as ownership of lines is concerned?

A. Well, we adopted the same color scheme as on the Bureau of Reclamation July, 1970 print with the exception of the cooperative lines. The cooperative lines are shown as brown on DX-92 whereas the Bureau of Reclamation show [T. IX, 37] them as blue. We did not adopt blue, of course, because the basic background is a blue print.

The colors then for the Otter Tail Power Company are orange; for the Northern States Power Company the lines are green; for the United States Bureau of Reclamation the lines are red; and for all the different cooperatives in the area the lines are brown.

Q. And down to what voltage are the lines that are portrayed on DX-92, generally speaking?

A. Down to 12,500 volts, generally speaking.

Q. So we have at least in this area for illustration shown what happened if lines of other suppliers down to the voltages on GX-439 were superimposed on it although, of course, DX-92 is a limited area in order to illustrate what the situation is?

A. That is correct.

Q. Well, then, with particular reference to the lines shown in brown which Mr. Anderson evidenced an interest in, they represent lines of cooperatives, do they?

A. That is correct.

Q. And the different widths indicate as they do in connection with other suppliers in general the voltage situation?

A. Yes, they do.

Q. For example, there are some wide brown lines shown here. What voltage would they be, or you can pick any one [T. IX, 38] out and tell us, if you know?

A. Well, from the legend, they are either 69 kv or 41.6 kv, but from my knowledge, I know they are the 69 kv lines of East River Electric Cooperative.

Q. And the narrower brown lines that appear generally proliferating the whole map, what voltage are they, if I can generalize in that way, perhaps they are different voltages?

A. No. They are 12,500-volt lines of the cooperatives.

Q. Now, if I went through the same process of description on DX-93, we have got a different area, of course, we will discuss the details of it in your general examination, but as far as foundation as to what is shown, would it be a similar type of description?

A. Yes, it would be.

Q. And are the lines of the different suppliers on these two exhibits DX-92 and DX-93 correctly shown as they are in existence in the field?

A. Yes, they are.

Mr. Field: We offer Exhibits 92 and 93.

(Defendant's Exhibits 92 and 93 offered in evidence.)

Mr. Anderson: No objection.

[T. IX, 39] The Court: They may be received.

(Defendant's Exhibits 92 and 93 received in evidence.)

The Witness: One further company on DX-92 I had forgotten, I mentioned the green was Northern States. On DX-92, also in the Northwest corner are some green lines of Northwestern Public Service Company.

By Mr. Field:

Q. Which Exhibit are you referring to for that comment?

A. DX-92.

Q. Very well. Let me ask this general question before we get into a few special situations I would like to call your attention to.

Are DX-Exhibits 92 and 93 fairly illustrative of what we would find if we superimposed these lines down to these voltages on other portions of Otter Tail's territory?

A. I believe they are. Yes.

Q. I presume the problem in doing it on a small map of the whole territory, as Mr. Trommershausen remarked, that we wouldn't see any map left if it was on that scale, do you agree with that?

A. Yes, I do.

Q. Now, if we can direct your attention to DX-93. I haven't asked you about the area covered by this exhibit. [T. IX, 40] Could you describe the geographical area that is shown on this DX-93?

A. Yes. DX-93 shows electric lines in parts of Sheridan, McHenry, McLean, and Ward Counties in North Dakota. They are around Minot which is the major city in that area.

[T. IX, 41] Q. Well, to get oriented with some of the testimony, does this DX-93 geographically include the area in which Velva is located, for example?

A. Yes, it does.

Q. And the name isn't very prominent there. Generally where is it located, to help the Court and Counsel, would you locate where Velva is? There seems to be quite a number of lines that come together near Velva that would probably help us.

The Court: I think we both found it.

Mr. Field: Very well.

By Mr. Field:

Q. There has been some mentioned in the depositions, at least, of Towner, North Dakota. Is that in this geographical area also?

A. Yes, it is. It's in the northeastern corner of DX-93.

Q. Somewhere in the stipulations or depositions or elsewhere in the record there is a reference to quite a congregation of different suppliers near Velva, North Dakota. Is that illustrated on this map?

A. Yes, it is. Just a couple miles southwest of Velva, North Dakota is the generating station, steam generating station of Central Power Electric Cooperative, and it's at that location where there is quite a—it's quite [T. IX, 42] a junction point for the higher voltage transmission lines in the area.

Q. Now, we had some testimony yesterday and perhaps at other times too about a planned municipal system at Velva, with the testimony indicating, at least in Mr. Hartl's testimony, that the plan was to obtain a source of supply at Velva

from the Sheyenne Valley, I believe, is that correct, coop there?

A. No. It was Verendrye Electric Coop.

Q. Thank you for correcting us. Verendrye Electric Cooperative and in turn East River Electric Cooperative. Are lines shown on here which would be involved in making that delivery or supply?

A. I believe Verendrye would obtain it from Central Electric Power Cooperative. Yes. They are shown on here.

Q. The delivery point would be one of these brown lines near Velva, would it, or don't I see that correctly?

A. Yes. It would be. This brown line of the thickness of 41.6 kv is a line of Verendrye Electric Cooperative that goes to the city limits of Velva.

Q. You probably could trace it through Central and so forth if anyone wants you to?

A. Yes, I could.

Q. And if we can refer—

A. Ryder was inquired about in the deposition stage, I [T. IX, 43] believe.

Q. Oh. Well, that's a geographic area shown on Exhibit 93. I should have called that to your attention. The Village of Ryder that's in the southwest portion of the map?

A. Yes, it is.

Mr. Anderson: I don't believe I heard the answer. You asked something about Ryder being—you indicated that was part of the deposition?

Mr. Field: Am I in error there?

Mr. Anderson: I never have heard of Ryder. I have heard of so many towns its very possible there has been something of an erosion of my memory with respect to all the towns,

but I don't recall Ryder having been discussed in the depositions.

The Witness: As I recall the depositions, inquiry was made about Ryder at the same time the inquiry was made about Velva because municipal agitation was simultaneous.

[T. IX, 44] By Mr. Field:

Q. Anyway, assuming that our memory is correct on that, does the map show cooperative lines adjacent to Ryder?

A. Yes, it does.

Q. Any other spot could be picked out and illustrated as to the adjacency of lines of cooperatives or other suppliers from these maps, am I right there?

A. That is correct.

Q. You have called my attention to a line that is broken, a heavy brown line that is broken on Exhibit DX-93. Do you want to explain what that is?

A. There are several cooperative lines on here that are shown as broken in the area north and east of Ryder. It's a 41.6 kv transmission line in the process of construction but not actually in service as yet, and it's the subject of a Verendrye Electric Cooperative-Otter Tail Power Company recent contract for an interconnection at Ryder.

Also, from Minot north and east there is a broken line representing a 150 kv line under construction by Central Power Cooperative which is the subject of a recent interconnection agreement between Central and Otter Tail Power. That line isn't in service, but it's under construction.

Q. Otherwise, are the lines that aren't broken or otherwise indicated as such, as you have described the lines that are in service now?

[T. IX, 45] A. That is correct.

Q. Well, directing our attention to DX-92, does that include the area in which Colman is located?

A. Yes, it does.

Q. First, locate Colman for us, will you please? It's in the bottom right-hand area, is it not?

A. Yes.

Q. And does it also include geographically where Aurora is located?

A. Yes, it does, towards the easterly portion of the map close to Brookings, South Dakota.

Q. Some mention was made, I believe, in the testimony about Rutland, South Dakota. Is that in the geographic area that is shown here?

A. Yes, it is.

Q. And that's northwest of Colman, I believe?

A. Yes, it is. Most of the villages are shown by cross-hatched areas, but Rutland is unincorporated. It's just shown by a circle with the legend "Rutland" adjacent to it.

Q. Reference has been made to recent developments at White, South Dakota. Does Exhibit DX-92 include the area in which White is located?

A. Yes, it does.

Q. That is towards the northeast portion of the map?

[T. IX, 46] A. Yes, it is.

Q. Just for example, calling our attention to Colman and Aurora and White, in order, and we will take Colman first, are the lines shown here which involve the source of supply of power to Colman?

A. Yes, they are.

Q. How are they shown? What is the color of the line?

A. The route of the normal supply of power to Colman is from the north-south Bureau of Reclamation line indicated

by a red line from the substation just to the west of Flandreau and then through the East River Electric Cooperative's 69 kv line, to the west, and a short distance south to a substation of East River Electric Cooperative which serves the 12,500 volt system of Sioux Valley Empire Electric Association, and then through the lighter 12,000 volt lines of Sioux Valley Empire Electric Association to Colman.

Q. The East River Electric Cooperative line is this wider brown line, I gather?

A. Yes, it is.

Q. Now, if you can direct our attention to Aurora, can you tell us briefly what lines are shown here that represent a supply of power to Aurora as it is now being supplied?

A. Tracing the normal route of power to Aurora, it's [T. IX, 47] from the Bureau of Reclamation Brookings substation on the red line just north of Brookings, the 69,000 volt line represented by the broad brown line of East River Electric Cooperative, then is from that substation to the east, you will note that that substation terminates just north of Bushnell. It serves the East River Electric Cooperative substation at that point. That substation at one time was served by Otter Tail Power Company.

Then it steps down from 69,000 volts to 12,500, and the lighter brown line then, in the most direct route from there, shows the route of the power from the East River Electric Cooperative substation over the Sioux Valley Empire Electric Association 12,500 volt line into Aurora.

Q. Calling your attention to White, South Dakota, which is north from the area we have just been describing and which has been referred to in the testimony, that's presently served by Otter Tail Power Company?

A. That is true.

Q. And it's served from the orange line, I guess it is orange or yellow, that is shown there?

A. Yes, it is.

Q. Now, would you point out alternate sources of power available to White, South Dakota, if they are shown on DX-92 in connection with an apparently planned municipal system that's been testified to?

[T. IX, 48] A. It's my opinion it would be served by the same substation that serves Aurora but another 12,500 volt line that goes east and north from that substation close to White.

Q. That would be the brown line running north that you referred to?

A. Yes, that would be the brown line, the 12,500 volt system of Sioux Valley Empire Electric Association.

Q. Are these maps illustrative of alternate sources of power in any particular point that might be picked out and could be developed from these lines of these suppliers?

A. Yes, it could be developed.

Q. And do these two exhibits, 92 and 93, illustrate in the areas that are portrayed there the extent to which the lines of other suppliers exists in Otter Tail's service territory?

A. Yes, they do.

Q. And presumably reflect in the areas which are portrayed, some of the mileage of electric lines that you developed in the exhibit that preceded these, 91, I believe it is?

A. Yes, they do.

Q. From your knowledge of all these lines, and apparently you are familiar with them, and your experience in the field, what is your opinion as to whether Otter Tail Power Company does or does not have a position of dominance in [T. IX, 49] the transmission of electric energy in your service territory?

A. I do not feel we have a dominance. I forget how some of your questions were phrased, but some of the lines represented by these two prints are what is defined as approximate to Otter Tail Power Company, of the service area, that is, the lines to the west of DeSmet are proximate, as I define the term.

Q. I see. Well, thank you for calling that to my attention. That relates to the same subject Mr. Anderson mentioned in connection with Exhibit 91?

A. That is correct.

Q. But with the exception of the lines that extend beyond what might be called Otter Tail service area, the balance of it is Otter Tail service territory, is it not?

A. That is correct.

Q. And the bulk of it, of course?

A. Yes.

Q. I call your attention to Rutland on Exhibit 92. I think service to that point has been talked about in the testimony. Generally, that is northeast of Madison, is it?

A. Yes.

Q. You pointed out the type of designation it has there already, I believe?

A. Yes, I have.

[T. IX, 50] Q. The orange or yellow lines there indicate the availability of Otter Tail's lines to serve the Rutland consumers, do they?

A. Yes, it does.

Q. And is Otter Tail serving some consumers in Rutland at the present time?

A. Yes, we are. It's listed as one of our communities that we serve.

Q. And I think there has been some testimony with reference to a request by some of the consumers there to switch suppliers to the cooperative. Are the lines shown here that would be involved in the cooperative serving that load if the change is made?

A. Yes, they are.

Q. What lines are they?

A. The cooperative has a line from the south. It touches this circle, as I indicated as the general location of Rutland. That line was built in there to serve a school that was formerly served by Otter Tail Power Company but has already transferred to the cooperative.

Q. What type of school, is that a public school of some kind?

A. Yes, it is.

Q. And that was a customer of Otter Tail, did you say?

A. Yes, it was.

[T. IX, 51] Q. How long ago was it the cooperative took over that customer, if you know, approximately?

A. Oh, approximately ten years.

Mr. Field: We would like to have marked as an exhibit this document which generally has the heading of, "Geographic Relative Market Study."

(Defendant's Exhibit 94 marked for identification.)

By Mr. Field:

Q. This document that's been marked DX-94, could you first just tell us generally what the scope and the nature of the document is?

A. DX-94 is a study of the power supply area No. 26 of the Federal Power Commission and is a study of the retail electric service and who supplies it in this power supply area.

Q. And in the back pocket as a part of the exhibit is there

a map that shows the geographic limits of the Federal Power Commission supply area that you mentioned?

A. Yes, there is.

Q. Now, this map that is from the back pocket is published by whom?

A. This is a map prepared and published by the Federal Power Commission.

Mr. Field: Perhaps I should offer the [T. IX, 52] exhibit before I start talking about its contents. I will offer the exhibit.

(Defendant's Exhibit 94 offered in evidence.)

Mr. Anderson: No objection.

The Court: It may be received.

(Defendant's Exhibit 94 received in evidence.)

By Mr. Field:

Q. Now, referring to the Federal Power Commission map which is a part of Exhibit DX-94, is there shown on there several electric power supply areas in the United States? I presume it speaks for itself. That's true, isn't it?

A. That is correct.

Q. And what supply area has been selected for this study?

A. Power Supply Area No. 26.

Q. That's towards the upper middle of the map, is it not?

A. Yes, it is.

Q. And the outlines of that power supply area are shown in red, are they?

A. Yes, they are.

Q. Now, let me ask you this. Does that supply area as so designated by the Federal Power Commission [T. IX, 53] delineated by this red line, does this roughly correspond with the outer periphery of the area served by Otter Tail Power Company's system?

A. Yes, it does.

Q. And that geographic area has been assumed as the geographic relevant market for the purpose of this study?

A. Yes, it has.

Q. And I will ask you this as is indicated in the exhibit, but it's the electric retail sales within that geographic area that's assumed to be the relevant market for the purpose of this study?

A. Yes, it is.

Q. Now, if we can get into the exhibit itself, and going beyond the index for a moment to page one. Just describe generally what is given there in the way of information and statistics?

A. Given on page one is a summary of the study showing the retail sales by several broad classifications, classified principally between investor-owner utilities and public power with public power being divided into municipals, cooperatives and Federal retail service, direct service of the Bureau of Reclamation, giving the total, Otter Tail Power Company's portion of the total, and then a percentage of the total being Otter Tail Power Company's portion expressed in percent.

[T. IX, 54] Q. Before we get into that particular statistic, are there schedules attached that give some of the buildup for these different classifications?

A. Yes, there are.

Q. For example, Schedule A gives the details as to the two investor-owned utilities in the area?

A. Yes.

Q. And Schedule B gives the details with reference to the municipals included in the area?

A. That is correct.

Q. And Schedule C gives the details with reference to the cooperatives in the area?

A. That is correct.

Q. Now, with reference to the cooperatives, that's pages five and six, I would like to direct your attention to a column that has the numeral two in parentheses at the top of it. Have you there given consideration to how much of the cooperative's service area is outside of FPC Supply Area 26?

A. Yes, I have.

Q. And expressed in percentage the amount of the area that's outside of that supply area?

A. That is correct.

Q. And have then—this is leading, but perhaps it is not objectionable—deducted from the total kilowatt [T. IX, 55] hour sales of the cooperatives the percentage that represents the amount of that service outside of this geographic area that is under study?

A. That is correct.

Q. And in column three is the net that is appropriate to the area that's under study, is that right?

A. That's right.

Q. I presume a somewhat similar computation could be made with reference to the mileage that we ran into this morning, that perhaps could be undertaken during the noon recess?

A. Yes.

Q. Now, Schedule D which has the heading of Federal retail service, and perhaps it would be well for you to tell us what the nature of that service is outside of the general description, is that direct service from the Bureau of Reclamation or what is it?

A. Yes, it is, and it's not for resale, that is, they are the ultimate customers, the entities named here.

Q. Well, just to orient ourselves with some of the items that have been mentioned in the testimony, Devils Lake School for the Deaf is listed the third item, I believe, is that right?

A. Yes.

Q. And I guess the State Hospital at Fergus Falls was [T. IX, 56] mentioned by Mr. Hartl, that's in the list also?

A. Yes, it is. The fifth item.

Q. And are the other descriptions self-explanatory or is there any that we should make a comment on?

A. Well, there is one very small one, the fourth one from the bottom, USBR, Snake Creek Laboratory that may be hard to identify. There is work going on at the Snake Creek embankment of the Garrison Reservoir, and the Bureau of Reclamation serves a laboratory for concrete analysis and so on at that point.

Q. Any others that occur to you that might be helpful to comment on in that list?

A. No. Nothing occurs to me.

Q. Then coming back to the summary on page one, what percentage does this study show that Otter Tail has in electric retail sales in this geographic market area study?

A. Twenty-eight and nine-tenths percent.

Mr. Field: Unless my associates call my attention to something I omitted, I am about to move into phase three and perhaps we might get started on that after lunch, if that's convenient.

The Court: All right. We will recess until 2:00 o'clock, gentlemen.

(Whereupon, a recess was taken until 2:00 o'clock p.m., June 11, 1971.)

[T. IX, 57] (June 11, 1971, 2:00 o'clock P.M.)

(Appearances as heretofore noted.)

Whereupon,

WARREN NYE,

having been previously sworn, resumed the stand and testified further as follows:

DIRECT EXAMINATION

(Continued)

By Mr. Field:

Q. Mr. Nye, during the recess were you able to make the calculation we were talking about this morning with reference to Defendant's Exhibit 91?

The suggestion was that you calculated the mileage that would be involved in cooperatives' mileage of electric lines that would be outside what we have been talking about as the Otter Tail service area. Were you able to do that?

A. Yes, I did.

Q. I presume you have the details of that calculation available if anyone wants them?

A. Yes, I have.

Q. Would you give us the net result of the adjustment when you eliminate from the statistics mileages of cooperatives' lines that are outside of the Otter Tail service area, will you give us the percentage of the miles of transmission lines that are Otter Tail's as compared to the total [T. IX, 58] as thus adjusted?

A. It's 8 percent.

Q. Eight percent instead of 6.2 percent?

A. That's right.

Q. Now, if we can pass on to what I have called phase 3, which is the odds and end description, we will refer to GX-425.

GX-425 has the heading of "Sales of Firm Electric Power

for Resale 1965-1968" and I call your attention to certain pages therein which contain some data with reference to Otter Tail Power Company, the first pages being 14 and 15. It has the heading of "Table 1," among other things. What is shown generally statistically on these two pages?

A. These are sales to total requirement customers by private electric utilities.

Q. Among other companies listed on that page is the Otter Tail Power Company?

A. Yes.

Q. What does it show with reference to Otter Tail Power Company on these pages?

A. It shows that for the years 1965, 1966 and 1967, there were sales to one municipality; none in 1968.

Q. Are you able to identify for us the municipality, the statistics for which are thus listed? The names of the municipalities aren't here?

[T. IX, 59] A. Yes, I can identify that.

Q. What is it?

A. Bagley, Minnesota.

Q. There's been some testimony about Bagley. That is the one town outside of the marketing area of the Bureau of Reclamation?

A. That is correct.

Q. It is also a town where service to which has now been transferred to another cooperative?

A. That is correct.

Q. And that is presumably why 1968 is blank? Is that true?

A. Yes, there were no sales to Bagley in 1968.

Q. And there are no sales recorded at all in 1968 on pages 14 and 15 for Otter Tail?

A. That is correct.

Q. Now, calling your attention to pages 30 and 31 of GX-425, it has the heading "Table 2." What type of statistics are contained on these pages?

A. Shown on these pages are the sales to partial requirement customers.

Q. On these two pages are shown Otter Tail Power Company, among other companies?

A. That is correct.

Q. And what does it show with reference to Otter Tail [T. IX, 60] in general, and can you identify the nature of the transactions and/or customers that are involved?

A. Yes, I can identify them. These statistics are taken from FPC one report, and by analyzing FPC one and comparing it with the totals on this sheet, I arrive at what schedules they had selected for the preparation of this particular report. What it is is a portion of the pool-type transactions, not all of them, but a portion, being largely what we call or what is identified in the pool contract as participation sales.

Q. There are several headings as we go across the page. Perhaps we had better address ourselves to the headings. The first one is "Associated Utilities." Am I reading this right?

A. Yes.

Q. Is there anything in connection with Otter Tail listed there?

A. No.

Q. "Non-associated Utilities", is that the area you were just talking about?

A. Yes.

Q. And would be the transactions there recorded which you say are a portion of the pool sales, is that the particular statistical material you had reference to?

A. The pool sales involve the cooperatives, too, but [T. IX, 61] all of those included in that column headed "Non-associated Utilities," were also pool-type transactions.

Q. Then I guess we had better move across the page. There is a heading, "Municipal," and there is nothing listed under Otter Tail for that, is there?

A. That is correct.

Q. And "Cooperatives," there is some statistical data under the heading of "Cooperatives." Are they pool-type transactions, too?

A. Yes, they are.

Q. Can you identify them so you can perhaps tell us what cooperatives are involved in pool transactions?

A. The cooperatives involved in pool-type transactions were Dairyland, Northern Minnesota Power Association, Rural Cooperative Power Association, Cooperative Power Association and Cass County Electric Cooperative.

Q. I see that there are different numbers of customers for the several years, but whether there are two or three or four, or three, as listed here, they would include those that you mentioned in some respects?

A. Yes. In some years there were transactions with one of the members of the pool and in another year it would be a different member of the pool involved.

Q. Is that true, then, that all of the data on pages 30 and 31 are pool-type transactions with one entity or [T. IX, 62] another?

A. That is correct.

Q. What is your description or statement with reference to what a pool-transaction is, so we can understand what we are talking about?

A. Well, pool-type transactions are purchases and sales under contracts that have provisions for reciprocal transactions, arrived at for the benefit of both parties, but with the thought that both purchases and sales will be made to meet the requirements of the respective parties.

Q. The pools under which these pool transactions were had, what type of entities are included as between investor-owned or cooperative or whatever?

A. Well, the Upper Mississippi Valley Power pool includes both cooperatives, generation and transmission-type of cooperatives and investor-owned utilities.

Q. Now, directing your attention to the basis of cost at which these pool transactions are made, is that necessarily related to the costs of any of the entities that participate in them, or is it a negotiated price? What is the situation?

A. Arriving at the price for a pool contract was one of the most difficult matters in forming the pool. The price has to be such as to encourage transactions, and with the diverse membership it was necessary to arrive at a price so that no matter what the type of ownership, they at [T. IX, 63] some time would buy. That isn't too burdensome, because in the long run the purchases and sales even out. Every one is ultimately expected to own all of their power supply and so each one is going the stairstep method of expansion and sometime will require purchases and sometime have capacity for sale.

[T. IX, 64] Q. What are the economic reasons why the price at which pool transactions are made is on a negotiated basis rather than related to costs as between members of the pool?

A. Well, there is a wide difference particularly in investment costs among the members of the pool.

Q. Would you just illustrate not with data but with description of the items that are involved or take a certain type of entity and compare it with another type of entity for us?

A. Well, the investor-owned companies have fixed costs, that is, for taxes, money cost, return, that type of cost that is in the range from 12 to 16 percent. The REA-financed cooperatives, depending on whether their investment is located in Minnesota or in North or South Dakota, would have fixed costs of, oh, from seven to five percent.

Q. What relation does that have to the ultimate question we are discussing here?

A. Well, it makes the annual cost of investment and facilities vastly different being lower for the cooperatives.

Q. Well, just for a hypothetical question, supposing the pool type transactions were fixed at a cost level at which the investor-owned facilities have, would that or would it not permit the type of exchange of pool transactions that you mentioned, if not, why not?

Mr. Anderson: Your Honor, I would [T. IX, 65] like to object. I don't see any point in having all this detail. I don't have any real substantial objection except that it seems to me we are getting rather deeply immersed in the incredible complex mechanics of operations of a power pool which are interesting, I suppose, but I don't know that they are really terribly germane to what we are trying to do here in this case.

The Court: How does it help us, Mr. Field?

Mr. Field: Well, there has been a distinction made between what Mr. Hartl called a true wholesale sale and a pool transaction, and I assume that the reason this exhibit was put in evidence without testimony, as far as that goes, was to point to somewhere along the line that Otter Tail says they haven't any wholesale transactions now and here is a list

that says they have, and we want to show what they are. That's the purpose of it.

The Court: I see. Well, go ahead further if you think it's necessary to make that point.

Mr. Field: Well, very briefly.

By Mr. Field:

Q. There is a pending question?

A. Yes. Participation power is the sale of power from a unit that's normally the latest unit on a system. [T. IX, 66] The unit is purchased larger than the system requirements for a few years. If this extra capacity were to be sold at the full cost of the owner in case the owner was an investor-owned utility, the cooperatives wouldn't buy because they could put in a much smaller unit with their lower fixed costs at a lower price than the full cost of the investor-owned utility.

So the price is some place in between the pricing of an investor-owned utility and that of a cooperative. In that way the cooperative would be encouraged to buy, but when the investor-owned utility's turn comes to buy, why he will be buying at a lower cost than it would cost him to add facilities.

Q. Is that an example of the distinguishing features between pool type transactions and what Mr. Hartl calls true wholesale sales?

A. That is right.

Q. But in making reports, are they all included, apparently, under sales for resale?

A. Yes, they are.

Q. Now, if we can refer to the FPC-1-1970 report, I think it's 441, if I am not mistaken, GX-441. We will make this just as brief as possible, but is this true, that there are sales for resale reported in FPC-1 - GX-441 that are subject to the same explanation you have just made [T. IX, 67] with reference to the previous exhibit?

A. Yes, there are.

Q. Are there page numbers you could refer to that, without going into what is stated there, that might be a convenient reference for this explanation?

A. Pages 412 and 413 give details on sales for resale as the heading shows.

Q. And are those sales pool type transactions for the most part?

A. Yes, they are.

Q. As a matter of fact, I think Mr. Trommershausen explained the same situation in his cross-examination if I am not mistaken?

A. As I recall, he did.

Q. Just for accuracy purposes, is there one item on these pages that is a true wholesale sale, and if so, could you call it to our attention?

A. Yes, there is. On line 31 is listed Cass County Electric Cooperative, and that extends across the page 413. It shows the sale of 1,500,000 kilowatt hours to Cass County Electric Co-op. It's not a full requirement sale. This is a negotiated quantity and delivery rate that was arrived at in settlement with Cass County.

Q. And is that for service to some particular towns that have been identified in the record?

[T. IX, 68] A. Yes. That was for partial service to Arthur and Hunter.

Q. Has this account since expired so it's no longer in existence?

A. That is correct.

Q. Now, we can refer to GX-56 for a moment. Now, GX-56 for the record has the heading, "Upper Mississippi Valley Power Pool Agreement," and so forth. Can you tell us what

is shown on that page generally? It's a one-sheet document.

A. Exhibit 56, GX-56 is the transaction agreement between Otter Tail Power Company and Northern States Power Company under service Schedule J of the Upper Mississippi Valley Power Pool Agreement.

Q. What is the nature of the transaction that's recorded or contracted for on this sheet GX-56?

A. The Service Schedule J is very seldom used, just for very special situations. In this case there was a power shortage in the Chicago-Wisconsin area and Northern States Power Company was gathering the surpluses in the area for resale to Wisconsin Public Service Corporation. That fact is indicated in the initial paragraph of the transaction agreement and it is for a very short period. I believe that would be a six-month period.

Q. And this exhibit illustrates some of the type of [T. IX, 69] transactions that can be made to help our neighboring utilities under a pool and also interchange arrangements?

A. Yes, it does.

Mr. Field: I wish to make reference to a paragraph in special municipal electrical service agreements that Mr. Anderson inquired about, about the operating, not operating in parallel by interconnection. I am having a little difficulty in locating the exhibit. If I can have just a minute I think we can find it.

By Mr. Field:

Q. I have reference to GX-10 which I guess is an example of it. Referring to GX-10 which is a Special Municipal Electric Service Agreement between the Village of Shelley and Otter Tail Power Company and calling your attention to Section 4f on page 11. Inquiry was made concerning that clause and the provision therein involving a municipality system being inter-

connected with Otter Tail's system and agreeing to cooperate in preventing and remedying difficulties that affect the efficient and proper operation of the party's systems by virtue of such interconnection. Then the provision that, "The Municipality agrees that during the term of this Agreement its system will not be interconnected with or operated in parallel with any system other than that of Otter Tail."

Now, what is the problem that that section is [T. IX, 70] addressed to and provided for, if you know?

A. Well, the second paragraph in Section 4f, the part dealing with the interconnection or parallel operation with other systems, deals with the difficulties and engineering analysis that need be made whenever any system is connected to two different control areas. Now, I introduce a new term here—a control area—but the Otter Tail Power Company system has a control area. The Bureau of Reclamation system has a control area. United Power Association has one. Rural Cooperative Power Association has one. Northern States Power Company has one. East River operates within the Bureau control area. What it is, it has at the centralized point a dispatcher's office. This equipment, in our case it's a digital computer, and information is fed into that equipment from the generating plants and information is fed into that computer from all the tie points to other control areas.

We have got many of them, maybe as many as 15 or 20 ties to other control areas, and each one of those points the information on the flow of power at that point has to be brought back to our dispatch office at Fergus Falls.

In the case of Northern States, a tie with Northern States, it also has to be taken to their dispatch office in Minneapolis.

In the case of the Bureau of Reclamation, it has [T. IX, 71] to be taken to their dispatch office at Watertown.

And the purpose of this is so that the generation within the area is so adjusted that it takes care of exactly from moment to moment the load within the area. So every tie point between the two areas has to be metered for this reason.

A municipality if it had another line into it, well, the chances are it would be from a different control area so that then we would be faced with the expense of putting in the metering and the information back to the dispatch office plus the equipment at the dispatch office to handle this information.

Q. Is this clause then directed to an operational problem?

A. Yes, it is.

Q. Is it standard or a unique clause?

A. I'd say it's standard. A standard with Otter Tail. It's also a standard in the industry.

Q. Now, with your knowledge of the electrical systems in existence in the area, the Otter Tail systems as well as others, I would like to ask you to address yourself to the available sources of supply of energy to the five towns that are listed in the outline that was given to the Court, at the request of the Court, by the attorneys for the plaintiff, and we can take them in the order that they are stated here.

[T. IX, 72] Hankinson, North Dakota is the first one. In connection with Hankinson, North Dakota and the proposed municipal system in Hankinson, what sources of power are there for such a system, without using the electric supply, electric lines of Otter Tail Power Company?

A. Well, they are named in the Central Power Study. One being the Bureau of Reclamation substation at Forman. A second one being Minnkota Power Cooperative near Wahpeton, North Dakota. And the third one being the East River Electric Cooperative line just south of Hankinson.

Q. Perhaps you could help us if you recall the mileage from Hankinson of these respective sources or points?

A. From Forman, line mileage is 28 miles—excuse me—38 miles. Forman is west of Hankinson.

From the Minnkota system the line mileage would be 30 miles, 30 miles to the northeast.

From the East River system it's 18 miles, 18 miles to the south.

Q. And the voltages of these lines that you have mentioned are what?

A. Well, at the Bureau of Reclamation substation at the time this Central Power Study was made there were two voltages, 69 kv and 41.6 kv. Since then 115 kv has been added to the Bureau sub.

The Minnkota line is a 69 kv.

[T. IX, 73] The East River line is 69 kv.

Q. Are those voltages that are susceptible of reduction to distribution voltages on a feasible basis?

A. Oh, yes. The whole East River system is 69 kv practically. I can state neither Minnkota or East River have voltages lower than 69 kv.

Q. Coming to the second one on the list, a town we have heard considerably about, Elbow Lake, Minnesota. Can you review very briefly the sources of power available to Elbow Lake's municipal system other than using Otter Tail's lines?

A. Well, of course, they adopted the plan voted on which was local generation, but besides that there was the possibility of the East River system just to the west of Elbow Lake, and then, of course, the Bureau of Reclamation substation to the south of Elbow Lake was discussed.

Q. There has been some mention of some studies made in connection with an independent line from the Bureau substa-

tion at Morris to the Elbow Lake plant to be operated in conjunction with the local generation which is there. Did you make one of those studies yourself?

A. Yes, I did.

Q. And the other one was made by whom?

A. By Mr. Mayben of R. W. Beck and Associates.

Q. In your opinion, did those studies involve a plan that's economically feasible for Elbow Lake?

A. Yes, they did.

[T. IX, 74] Q. Now, again referring to DX-5 for a minute in connection with the Elbow Lake situation, DX-5 is a portion of the minutes of the meeting of the village council of Elbow Lake that was received in evidence some days ago, this meeting being dated June 7, 1965.

Is there a reference in those minutes to the source of power of East River Cooperative?

A. Yes, there is.

Q. Perhaps you could read that paragraph to us and then we will ask you a question about it.

A. On the second sheet of the minutes the third paragraph from the bottom:

"An official of the East River Co-op appeared before the council regarding the delivery of the villages allocation of Federal power to the electrical system being constructed in the village. This official stated that East River could construct the 14 miles of line and the sub station needed to serve the village. Said construction cost to come out of the East River general fund and not the six million dollar loan recently received from REA. The estimated cost of power over such a system to be under .03 mills for wheeling, $1.45 per kw per month plus .03 mills power charge or approx. .07 to 8½ mills delivered to the sub station in the village."

Q. Perhaps it wouldn't be out of order to ask you if maybe the decimal points as to mills might have been misplaced [T. IX, 75] by the reporter of the minutes. It seems like .03 mills is quite a small figure, and also, that occurs twice there.

A. Yes, I believe it should read, "The estimated cost of power over such a system to be under 3 mills for wheeling, $1.45 per kilowatt per month plus 3 mills power charge or approximately 7 to 8 ½ mills delivered to the substation in the village."

Q. And is that the source of power from East River Cooperative that you referred to a few minutes ago?

A. Yes, it is.

Q. Coming to the next town on the list, Aurora, South Dakota, I guess you have already explained that, haven't you, in connection with preparing the map?

A. Yes, I did.

Q. That source is not only available but is being used?

A. That is correct.

Q. Is the same situation true with reference to Colman, South Dakota, that you have already described that source and the lines and so forth in connection with it?

A. That is correct.

Q. That is another source that is actually being used at the present time?

A. Yes, it is.

Q. Coming to Finley, North Dakota, the last town on the list, that is the town, as has been pointed out, I believe, [T. IX, 76] that is served by Otter Tail Power Company?

A. Yes, it is.

Q. And as stated on this list, the proposition for a municipal system was defeated at the polls on November 17, 1964? I presume you are familiar with that?

A. Yes, I am.

Q. With reference to the source of power for a proposed municipal system in Finley, North Dakota, can you tell us what source of power or sources would be available for such a system?

A. Probably the least expensive would be from the Minnkota Power Cooperative system which is right adjacent to Finley. That is a 69,000 volt line. But also available is the 115,000 volt line of the Bureau of Reclamation that runs between Jamestown and Grand Forks, and for a load the size of Finley, why, a 115,000 volt tap would probably be practical, also.

Q. Then next referring briefly to GX-438, which is the system map of the East River Cooperative, there's been some testimony in the case about the use of radial or stub lines to serve loads for municipalities. On this map, GX-438, are there examples of radial lines that are being used by East River?

A. Yes, there are.

Q. Can you give us an example of one of the larger [T. IX, 77] radial lines that might illustrate the situation that I am asking about?

A. One of the illustrations in the Northeastern corner of South Dakota where the East River radial line is served out of the Summit Bureau of Reclamation substation.

Q. Let's pause a minute so we can tell where we are on this map. Can you locate it for us?

A. The northeastern corner of South Dakota is adjacent and to the west of the two lakes shown. Some of the names of the substations are, starting at the north end, Victor, Sisseton, Grenville and Wilmot.

Q. You spoke of Summit. Where is that?

A. Summit isn't named on the map.

Q. Where is it?

A. The Bureau of Reclamation lines are shown in black and it's a little difficult unless you are familiar with the lines to distinguish between the black lines and the blue lines, but the Summit substation is indicated by the symbol as shown in the legend, that is, a circle with a solid triangle in it, and it's to the west of the name Marvin and to the south of the name Wilmot. It's a circle with the solid triangle in it at the junction of three black lines, which is the Summit substation.

Q. It's on the map, all right, but the word or name Summit isn't there, is that what you mean?

[T. IX, 78] A. Yes.

Q. What is the radial line that you are about to describe for illustration here?

A. The 69 kv radial line from the Summit substation to the Wilmot sub, and then there is a tap to the west to the Grenville sub. It extends on north from the Wilmot sub to the Sisseton sub and then east to the Victor sub, so that all four, namely, Wilmot, Grenville, Sisseton and Victor that are East River substations on this radial line.

Q. There looks like a line that comes down from the northwest towards Sisseton, and what is that, does that have anything to do with this being a radial line or not?

A. There is no interconnection with that line. That is a black line and is a new line just completed by the Bureau of Reclamation between Forman, North Dakota, and Summit, South Dakota. It's a 115 kv Bureau of Reclamation line and it doesn't have any relationship to the radial line except at the source at Summit.

Q. Just, for example, what would be the size of the load on this radial line as compared, for example, to one of the towns we have been talking about, Elbow Lake, Hankinson, any one that you want to pick out?

A. It would be much larger than any of the towns that we have talked about.

Q. So these radial lines are in use, then, by East [T. IX, 79] River, among others?

A. Yes, they are.

Q. And I suppose other illustrations could be pointed out?

A. Yes.

Q. I won't ask you myself any questions about it because I think the record is fairly clear on it, but you have personal knowledge of the Britton-Hillhead situation represented by GX-65 that was inquired of through Mr. Hartl, are you not?

A. Yes. I negotiated the contract.

Q. So you can respond to any questions that counsel might wish to ask about that situation?

A. Yes, I can.

Q. By the way, I neglected to ask you, if you know, approximately how long this radial subline that goes from Summit to Wilmot to Grenville to Victor substation, how long that has been used in that fashion?

A. At least 15 years.

Q. My associate suggests that you might also further describe this illustration of a radial line by how long it is in miles, approximately.

A. This is approximately 45 miles.

Mr. Field: That concludes the direct examination of Mr. Nye, Your Honor.

[T. IX, 80]

CROSS-EXAMINATION

By Mr. Anderson:

Q. Taking the last thing first, namely, the discussion of radial lines, do you recall that the Otter Tail Power Company

once served a town by the name of Georgetown, Minnesota?

A. Yes, we did.

Q. Is that town at the end of a radial line?

A. Yes, it was.

Q. Did that town experience service difficulties?

A. Not particularly service difficulties. The great problem with that town was that it was so far from where the serviceman was located at Crookston.

Q. I call your attention to GX-84, which is a group of stipulations between the parties, and this group here has reference to Georgetown, Minnesota, and I will read 98 and 99 to you: "Otter Tail delivered power to the town over a radial transmission line. Georgetown was at the end of the radial line located 60 miles from Crookston, Minnesota, the nearest administrative and service center. These facts caused difficulty to Otter Tail in providing adequate service to the town."

Does that refresh your recollection?

A. I am familiar with it, yes.

Q. What did Otter Tail ultimately do with that line?

[T. IX, 81] A. We sold it to a distribution cooperative.

Q. This was because the coop was in a better position to render adequate service to the town?

A. They had servicemen closer to it than we did. I am not saying a radial line is more desirable or is desirable as loop service. What I am saying is that it is used frequently and there is some left on the Otter Tail system.

Q. If you have a choice, it's better not to do it that way?

A. Yes.

Q. I think I will start here by looking at DX-94. Do you have that?

A. Yes.

Q. Now, you have enclosed here a map which has United States broken down into what are called electric power supply areas, a map prepared by the Federal Power Commission.

Now, are you able to tell us how the FPC went about deciding how to define the power supply areas?

A. I am not sure I can help much on that, on the reasoning of the Federal Power Commission on this. That power supply area number 26 so closely fits the outline of Otter Tail Power Company system and was changed once when the outline of Otter Tail Power Company changed, that I assume it's supposed to represent the service area of Otter Tail Power Company.

[T. IX, 82] Q. You don't know that for a fact? You don't know what criteria the FPC used in deciding what the outline of area 26 should be?

A. I am just judging from the results of it.

[T. IX, 83] Q. Would you tell me, Mr. Nye, how Otter Tail Power Company defines the term "service area"?

A. No. I don't believe I can.

Q. Otter Tail Power Company does use that term, does it not?

A. Well, it's shown on the face sheet of this exhibit. We say that, "The geographic limits cover Federal Power Commission supply area No. 26 which corresponds generally with the outer limits of the area served by Otter Tail Power Company's system."

And with that definition or that title, I agree, that is, we don't serve any place beyond that system, beyond that area. We serve within that power supply area.

Q. Now, looking at Schedule A of DX-94, do Northern States and Otter Tail Power Company compete for retail loads in region 26?

A. Well, the fact that Otter Tail Power Company does not serve in Minot or Grand Forks or Fargo is probably an historic accident. We very much would like to serve in those areas.

Q. Have you tried to?

A. There has been talk of purchase of those areas, yes.

Q. Has there ever been anything done in that direction?

A. Well, negotiations, that's all. We have [T. IX, 84] purchased some properties from Northern States Power Company out in the Grand Forks area, specifically Fisher, Red Lake Falls, Gentilly and Saint Hilaire were formerly served by Northern States Power Company and now served by Otter Tail.

Q. How do those negotiations come about? Do Northern States and Otter Tail get together voluntarily and so one decides to buy from the other as a particular part of the service area, is that it? I am trying to reconstruct how these types of negotiations between NSP and Otter Tail come about? Pick one of those—

A. That would be a general outline, yes.

Q. Pick one of those towns. Are those the towns you are talking about now?

A. Yes, they are.

Q. Fisher. How did the Fisher situation develop?

A. Fisher is located between Grand Forks on the Northern States Power Company system and Crookston on the Otter Tail Power Company system, and with the location of the transmission lines, the maintenance required on the transmission lines, it looked like a more economical way of serving it was from Otter Tail Power Company. So Otter Tail Power Company purchased it from Northern States.

Q. Who approached whom? Who took the first step, Northern States or Otter Tail?

A. I don't recall. I didn't participate closely in [T. IX, 85] the negotiations.

Mr. Field: I think Mr. Hartl did. He isn't on the stand now, but is still here. So if there is information in that regard he can probably furnish it.

By Mr. Anderson:

Q. I take it the upshot of the thing was that NSP voluntarily relinquished, I guess for a price, that load?

A. Yes. We paid for it.

Q. You paid for it. Well, now, apart from these voluntary arrangements which NSP and Otter Tail have occasionally entered into pursuant to which loads have been exchanged between the two, can you point to any examples of competition between the two where one was trying to obtain customers from the other which the other wanted to hold onto, competition, do you have any examples of that?

A. Well, in these towns we referred to, I don't know what Northern States' attitude was. That was just, I suppose, the economic pressures on service that made those transactions possible.

Q. But those were voluntary things. I am talking about situations where either NSP or Otter Tail, whichever the case may have been, made an effort to obtain customers from the other which the other sought to keep?

A. Well, I don't know exactly what kind of situation [T. IX, 86] you have in mind.

Q. Maybe there were no such situations. I don't know. If there weren't—were there? I guess there weren't?

A. Well, on the general situation of who in the long run is going to serve Fargo and Grand Forks and Minot, why very possibly it will be Otter Tail Power Company, and Northern States very much wants to keep those at the present time at

least. Now, how would it come about: Would Otter Tail purchase that property from Northern States? Would Northern States merge with Otter Tail Power Company? Would they buy Otter Tail Power Company so it's Otter Tail Power Company, Division of Northern States? I don't know.

But in the future it seems logical to me that there may be one operating entity up in that area. We both compete to survive, I am sure. I hope there continues to be an Otter Tail Power Company.

Q. What do you mean you compete to survive?

A. Well, if Northern States bought Otter Tail Power Company then there would be no more Otter Tail Power Company.

[T. IX, 87] Q. I know. You used the phrase compete to survive. I was wondering what that meant, how you used the term competition in that sense?

A. The way I like to see it resolved is that Otter Tail serves Grand Forks and Minot and Fargo as Otter Tail Power Company.

Q. But as things exist now, those three islands, Minot, Grand Forks and Fargo are in NSP service areas, are they not?

A. They are currently serving them, yes.

Q. Right. You mentioned, and I don't mean to turn this into any sense of the word a Section 7 case, but since you mentioned the matter, I will just ask you one question about it. You were talking about possibilities of what could occur in the future, and among the possibilities you listed a merger between NSP and Otter Tail. Have there been any negotiations or discussions between the two companies concerning that?

A. Not that I know of.

Q. Well, now, looking at Schedule B, DX-94, now, I take it that list of municipal systems includes the municipalities to whom Otter Tail presently wheels power?

[T. IX, 88] A. Yes, it does.

Q. Now, you say the source of that information is municipal records. See that, it's on page 4?

A. Yes.

Q. What do you mean by municipal records?

A. Well, each town, of course, keeps some kind of records, not necessarily publish any report, and it may be very fragmentary records, but a visit was made to each town and obtained what information the town had available in operating the municipal system.

Q. I see. And these XWH sales listed on the right-hand side of that schedule, I take it are sales in what, 1970?

A. No. As on the page 1—

Q. I see, 1969.

A. All the data is 1969 calendar year.

Q. Now, would I be correct in assuming that if we add the municipalities listed in Schedule B—strike that.

Now, turning to Schedule C where we have a list of cooperatives who are making sales in region, supply area number 26, what's been the historical purpose of REA coops?

A. Well, originally they started to furnish electric service to loads that did not or could not be served by Central Station service.

Q. Farms and isolated houses, things like that, I take it, were the focus of their effort, I guess in the early [T. IX, 89] years?

A. In the early years, yes. The character of the cooperatives has shifted substantially though.

Q. Now, does Otter Tail ever make an effort to obtain retail loads served by coops?

A. A possibility there may be some instances, but not generally, surely.

Q. How many retail towns served by Otter Tail has Otter Tail lost to REA coops over the past 25 years?

A. Well, I suppose it depends on what you mean by the term lost.

Q. How many—

A. Let's see, you limited it to retail towns. I think that question, if I get it, was answered in the Interrogatory.

Q. I guess that's GX-2, page 3 thereof, Answer 2b on page 3 of GX-2. That page shows 9.

A. I suppose I could count out each one of them. Aurora and Colman have been discussed. Their situation is in the record.

Q. Those two situations, the coop only wheels power, it doesn't sell any power to them?

A. And services the municipal distribution system.

Dakota City, North Dakota, well, it either disappeared or a couple customers left and went to the coop.

Elbow Lake, Minnesota, situation has been discussed.

Georgetown was touched on. That was sold to the [T. IX, 90] cocperative.

Q. That was a situation where Otter Tail voluntarily relinquished that town?

A. The transaction was mutually agreeable. Sanish and Van Hook Mr. Hartl touched on this morning. White Spur, North Dakota, that was another sale to the cooperative, and Woodworth, North Dakota, was sold to the cooperative.

The Court: Maybe you would like to recess at this time for about 10 minutes.

(Recess taken.)

By Mr. Anderson:

Q. Looking at Schedule D of DX-94, I take it all of the customers listed on that page are governmental institutions or institutions of one sort or another?

A. That is right.

Q. And I take it that as such, each of those qualifies as a preference customer with the Bureau of Reclamation?

A. Yes.

Q. Customarily, loads such as these would be classified as commercial customers, would they not? Isn't that how utility would ordinarily classify sales—

A. We don't use the term commercial customers. We use the term general service.

Q. I see.

A. Grand Forks State Mill, you would classify that as industrial.

[T. IX, 91] Q. Now, in some instances here I take it that Otter Tail wheels the Bureau power at least part of the way to the governmental institution which is the Bureau's wholesale customer?

A. Yes.

Q. The North Dakota School for the Deaf, I take it, is one such example?

A. Yes, it is.

Q. Are there any others on that list?

A. Belcourt-Turtle Mountain Indian Agency, we wheel to that; Bottineau-State School of Forestry and Devils Lake, North Dakota School for the Deaf, Dunseith-San Haven Sanitarium, Fergus Falls State Hospital, Fort Totten Indian Agency, the Grafton State School, USBR-Oakes O & M Headquarters, USBR-Snake Creek Laboratory, U.S. Air Force, in fact, all those with the note (a) at the right-hand column are ones that Otter Tail Power Company wheels to. Most of those were at one time retail customers of Otter Tail.

Q. Well, I guess we can agree that at the time that munici-

pal agitation first occurred in Hankinson, at that particular time the Otter Tail Power Company enjoyed a monopoly in the sale, retail sale of electric power within the town?

A. I believe we were the sole supplier within the town, within the corporate limits. The city's well just outside of [T. IX, 92] the corporate limits was served by the cooperative.

Q. Would the same be true for the city or village of Elbow Lake, that at the time the municipal agitation there commenced, Otter Tail was the sole supplier of electric power at retail for the town?

A. I believe that would be correct, yes.

Q. Would the same be true with respect to Aurora, South Dakota?

A. No. There were several cooperative customers within Aurora.

Q. I am thinking about within the city limits of Aurora at the time the agitation began.

A. Yes, the cooperative was serving within the corporate limits at the time agitation began.

Q. Who did they serve?

A. Residences or farmsteads that were right at the edge of town.

Q. Not inside the town?

A. Well, within the corporate limits, yes.

Q. How about Aurora?

A. Well, we were speaking of Aurora.

Q. Colman, South Dakota, then?

A. Yes, the cooperative had a number of customers within Colman, also.

Q. Now, Mr. Field mentioned the fact that you had been [T. IX, 93] a party or had been a participant in the negotiations between East River and Otter Tail which produced GX-

65, the transmission agreement between Otter Tail and East River involving the Hillhead substation and the Britton substation.

Do you recall that?

A. Yes, I recall that.

Q. Could you tell me what your understanding of that contract is insofar as the freedom of East River to serve the town of Britton, South Dakota, is concerned?

A. I feel there's no inhibitions in that contract for East River to serve Britton.

Q. Do you know whether East River has the same view?

A. I am sure they do. I am very sure they do.

[T. IX, 94] Q. Just very briefly I would like to have maps DX-92 and 93. I am going to give you a copy of GX-206 and a pen and ask if you will just roughly sketch on 206 the areas encompassed by your two big maps here. Can you do that in a rough sort of way?

A. Well, initially I would like to put it in in pencil.

Q. Sure. It doesn't have to be perfect.

A. I have got the South Dakota area sketched out in pencil.

Q. Now, if you would just very quickly do that for the other one and we will see exactly how your big maps fit on this other map.

A. I have outlined in ink the approximate area of DX-93 also.

Q. Now, I would like to have marked as GX-206-B the document, the map which Mr. Nye just superimposed his two smaller maps upon. He has traced on the big map of the eastern area here the areas which his two maps DX-92 and 93 encompass and there is a fat black line around both such areas.

(GX-206-B marked for identification.)

Mr. Anderson: I offer it in evidence.

The Court: Absent objection, it may [T. IX, 95] be received.

Mr. Field: No objection.

The Court: It may be received.

(GX-206-B received in evidence.)

By Mr. Anderson:

Q. Now, looking at DX-93, I take it that one of the co-ops whose little brown lines are reflected on DX-93 is Verendrye Co-Op, Electric Co-Op?

A. That is correct.

Q. That's a distribution co-op, isn't that true?

A. Yes.

Q. Now, Verendrye operates a distribution system at 7.2 kv, does it not?

A. It's 12.5 kv system.

Q. They operate it at 7.2, don't they?

A. From any one of the wires to ground is 7.2 kv.

Q. All right.

A. Between the two wires is 12.5.

Q. That's not a transmission system, is it? That's a distribution system?

A. Well, the borderline between the transmission line and distribution, there isn't any such thing. It depends on what it does. If it can deliver to towns, why it would be a transmission system. There is no line that has a single function, or let us say there are many, many lines [T. IX, 96] that have more than service to the ultimate customer. They can serve the ultimate customer or can be stepped down between that line voltage and the ultimate customer. Verendrye has many 41.6 lines, too.

Q. Those would be transmission lines, would they not, 41.6?

A. Well, so far they are. They can directly serve customers.

Q. Well, now, in order to ascertain whether any of these little brown lines could in fact be used to deliver power to a town, one must consider a number of factors, must one not? For example, isn't it necessary to know the size of the wire in the line?

A. Well, I suppose we better start out with the size of the load.

[T. IX, 97] Q. Okay. Let's start with that.

A. So the line capacity has to be matched with the load requirements.

Q. You have to examine the size of the load to be served, you have to examine what size wire you have got, and don't you also have to be concerned with the distance between the load and the plaintiff intersection of the particular line that you are talking about with another higher voltage line?

A. That is one of the things to be taken into consideration in an engineering analysis.

Q. That is an important factor, isn't it?

A. The distance?

Q. Yes.

A. That is one of the factors.

Q. You can't tell from just looking at the map whether it would be feasible or would not be feasible for a municipality to be served over one of these little coop lines?

A. I think any municipality we have on this map could be served right off of the distribution system, anything that Otter Tail has, any load we have got in this area could be served directly off a cooperative line.

Q. How many towns in the region which Otter Tail serves at retail have left Otter Tail to become municipal operations in the area encompassed by DX-93?

[T. IX, 98] A. Up to this time, none of them have left us; up to this time, that is. There is serious talk in many of them.

Q. Some of them have considered it and rejected it, right, like Velva?

A. Rejected it for then. I am sure it will come up again in Velva.

Q. I take it that if you did this sort of a map for the area around Hankinson, it would look pretty much the same, would it not, a lot of little coop lines in the general area?

A. Yes, it would.

Q. Probably the same would be true for Elbow Lake, would it not?

A. That is correct.

Q. In both those instances, the towns were unable to obtain supply from any such little coop lines, isn't that true?

A. In those cases, the loads were such that to obtain an outside source, in the case of Elbow Lake from East River or from the Bureau, a higher voltage line was required than the 12,500 line. The same thing in the case of Hankinson, the 12,500 volt line from East River to Hankinson would be just border line, I'd say.

Mr. Anderson: That scratching noise you hear, Your Honor, is me very quickly running out of [T. IX, 99] questions.

By Mr. Anderson:

Q. How did you happen to pick the two areas you picked for your two maps, GX-93 and GX-92?

A. I selected them on the basis of the towns that were under discussion; a large number of towns were under discussion in the interrogatories and the stipulations—not stipulations, the answers to interrogatories and the depositions at Fergus Falls, a couple of areas that had a large number of those towns on the map.

Q. You were telling us before that there were alternative supply opportunities for Hankinson and also Elbow Lake, do you recall that on your direct testimony?

A. Yes.

Q. Every one of those alternatives involved building a transmission line, did it not?

A. Well, of course, the alternative Elbow Lake selected was self-generation. The other alternatives discussed involved someone investing some money.

Q. Well, we know that Elbow Lake tried things other than self-generation?

A. Not until after they had selected self-generation.

Q. Before they built any system, they tried to locate other sources of power, you would admit that, won't you? The record is full of that, wouldn't you agree?

[T. IX, 100] A. It is what the record shows.

Q. You listed a number of alternative supply arrangements for Elbow Lake, and as I recall, one of them involved building a transmission line, isn't that true?

A. If the supply was East River, it involved a transmission line from the East River system in the Traverse area, and if it was from Morris, a transmission line was involved there. Some money would have to be invested by someone.

Q. How long would that East River line have to actually be?

A. As I understand the system planned by East River, and from the location of the present East River substation on our line, I thought it would be six or eight miles. I noticed in the report of the council meeting that 14 miles was mentioned. That seems longer than my judgment of it.

Q. You were talking about a study that East River had at one time concerning construction of a line that would run fairly close to Elbow Lake? Do you recall that?

A. Well, that was referred to in the minutes we read.

Q. They never built that line, did they?

A. So far, they have not, no. It's still in their planning, I'm sure.

Q. You also made mention of the fact that Finley probably could have tapped on to the Bureau 115 kv line, do you recall that testimony?

[T. IX, 101] A. That is correct.

Q. How much do you suppose that would have cost a town the size of Finley?

A. I wouldn't be surprised if the Bureau of Reclamation would put it in.

Q. Have they ever done that?

A. Oh, yes, on this map we have, July, 1970, there are several 115 kv to distribution voltage substations on the Bureau system.

Q. To serve one load the size of Finley?

A. Whatever is required on the distribution system.

Q. You have been in the business a long time. Do you think it is likely that the Bureau of Reclamation will spend money to build a substation of that type to furnish a town the size of Finley?

A. We have a very good illustration in this area not too long ago, Hillsboro, North Dakota, where the Bureau of Reclamation was going to put in a substation on the 115 kv line to serve Hillsboro, about the size of Finley, and Northern States Power Company resisted it; they thought that they should wheel over the Northern States line. It was eventually resolved to wheel over the Northern States line, but the proposal was there to build a substation on the Bureau line.

Q. Is Hillsboro a historically municipal operation [T. IX, 102] or did it recently become a municipal operation?

A. It was municipal before my time.

Q. I think I am closing in on one of my very last questions, and that briefly has to do with GX-10, specifically section 4f thereof, the provision which has to do with the question of whether the town can interconnect with systems other than Otter Tail Power Company.

Now, as I understand it, that provision would prohibit the town from establishing even an emergency interconnection with someone other than Otter Tail, should it desire to do so?

A. Well, it would require negotiation in that case, but as written, they couldn't do that without receiving our consent. I can't visualize not giving it, but the contract as written would require our consent.

Q. That is exactly what happened in Elbow Lake, isn't it? You wouldn't give your consent there?

A. We didn't have that contract with Elbow Lake.

Q. Whether you had the contract or not, you wouldn't consent to do it, isn't that true?

A. We are accepting the Federal Power Commission order permitting such an interconnection. We have quit fighting that.

Q. One last question. How many customers did the coop actually serve in the town of Colman?

[T. IX, 103] A. Oh, I don't know, maybe half a dozen.

Q. Half a dozen houses?

A. Or business places.

Q. Do you know for sure, or are you just guessing on that?

A. I am visualizing the area that is served. It served along the east edge of Colman.

Q. But Otter Tail served the rest, the bulk of the load of the town?

A. Until we were ousted, we did, yes.

Q. How about Aurora?

A. I'd say we served the bulk of the load in Aurora.

Q. Approximately how many customers does the coop serve in Aurora?

A. There, too, it wouldn't be over a half dozen.

Q. I take it that DX-98 indicates that insofar as that area is concerned, Otter Tail does not have dominance in transmission? Do you agree that that is what that document seems to indicate?

A. The whole concept of dominance is a subjective concept. It doesn't have any engineering connotations, as I see it. I suppose you can look at this and get the impression that there sure are a lot more brown lines than orange lines. In that sense, I'd say Otter Tail's role in [T. IX, 104] this area is quite minor.

Q. A policy of refusing to wheel or refusing to make wholesale sales in that area isn't likely to have any meaningful effect so far as Otter Tail is concerned, is it?

A. Well, it will prevent our system from being used to erode us.

Q. But the erosion can occur anywhere?

A. Erosion can occur anywhere on our system.

Q. The refusal to sell and refusal to wheel, as I understand it, won't have any effect so far as preservation of Otter Tail is concerned, as I understand your testimony in this region?

Mr. Field: I object to that characterization of his testimony. It's quite the reverse.

The Court: You may answer. Tell us, explain it.

The Witness: Will you read the question?

(The question was read.)

The Witness: I really don't know what effect it has. I don't know that anyone in this region is even aware of our position.

By Mr. Anderson:

Q. Well, I think the deposition indicates and other evidence in the record indicates that people in Velva got [T. IX, 105] some indication of what your position was by virtue of presentations made in Velva?

A. I don't believe the record shows that. I don"t recall it. As far as I know, the people in Velva, the proponents of the municipal system in Velva have their own plans without any contact with us.

Q. Let me ask you this with respect to DX-93. If, in fact, it is possible for a town in that area, a town that Otter Tail has served at retail, if it is possible for them to make arrangements with someone else to have power to deliver to the town so the town can operate a municipal system, why wouldn't it serve Otter Tail's corporate interests to try to compete to obtain at least the town as a wholesale account?

A. No one would ever ask us for that service. It would be foolish for us to go and offer a price of 17 and 7 tenths mills against the Bureau's 5 mills.

Q. Supposing the town—

A. We would be laughed out of the council meeting.

Q. Supposing a town in that area asked you right now, no more Bureau allocation, supposing a town in that area came up to you right now and said, "Look, we want to set up a municipal system. Will you sell us some power at wholesale?" "Well, we will talk to one of these guys with the brown lines and see what we can do with that." Why wouldn"t it make [T. IX, 106] sense to Otter Tail to sell to that town?

A. It is inconceivable that such a situation would exist.

Q. Well, just right now there is no alternative source of power allowed—

A. Well, there is plenty of alternative sources.

Q. Where?

A. They can buy from Verendrye Cooperative.

Q. Where will they get the power?

A. Well, their sources of supply of power—

Q. They all go back to the same place, don't they, the Bureau?

A. Well, the Bureau has the capacity for the load growth at Verendrye. Basin has the capacity for the load growth at Verendrye, and they don't distinguish whether it is load growth by acquisition of towns or load growth by increased milking machines. It's all the same load growth. Basin doesn't investigate where the kilowatt hours are going.

Q. Why give up? Why not go in there and fight and try to get the wholesale setup?

A. I can't answer that question.

Mr. Anderson: That's all I have.

[T. IX, 107]

REDIRECT EXAMINATION

By Mr. Field:

Q. Referring to some of the various cross-examination with reference to DX-94, Schedule A, you were asked questions with reference to the potential of the exchange of properties or service as between Northern States Power Company and Otter Tail Power Company. Let me ask you this. Are both of those companies subject to the jurisdiction of the Public Service Commission of North Dakota?

A. Yes, they are.

Q. And is it fair for me to state that any transaction involving the exchange, the sale of properties or extension of service by either would come within the jurisdiction of the Commission?

A. That is correct.

Q. Also with reference to any potential sale of any substantial amount of property, I guess the minimum figure under the Federal Power Act is $50,000, if my memory serves me. Would any such transfer or sale be subject to the jurisdiction of and approval by the Federal Power Commission?

A. Yes, it would.

Q. Some mention has been made in this case, I think by Mr. Hartl, of the expansion period in Otter Tail Power Company's growth represented by the effective time of the Holding Company Act. Historically was that a factor that [T. IX, 108] was considered in connection with the Otter Tail-Northern States Power properties we are talking about?

A. Yes, it is.

Q. In what way, just briefly?

A. Well, the areas we are talking about in FPC 26, Minot, Grand Forks, Fargo areas of Northern States are physically separated from their main system which is in Central and Southern Minnesota and Southeastern South Dakota and Wisconsin, so before the development of an extensive transmission network in this area, there was some thought that maybe there should be a divestiture of those properties because they weren't integrated with the main system, but Northern States through line building and contractual arrangements has now integrated them with their main system.

Q. These are just another factor in connection with the potential development of different suppliers in these areas, is that true?

A. That is true.

Q. Now, turning to Schedule B of DX-94, you were asked some questions concerning that, among them being if the list of municipals included municipals to whom Otter Tail wheels power, and your answer was in the affirmative. There, of course, are other municipals on here too, besides those.

A. Oh, yes. Many more.

[T. IX, 109] Q. Yes. The municipalities to whom Otter Tail wheels power, are they the same ones we've been discussing in other contexts in this trial, substantially speaking?

A. Yes, they are.

Q. Is this true that that's the same list that previously was customers of Otter Tail Power Company and are now customers of the Bureau of Reclamation?

A. Some of these municipalities were never customers of Otter Tail Power Company.

Well, for instance, Big Stone City in South Dakota I believe was a customer of Ortonville or had self generation and then became a customer of the Bureau of Reclamation without going through the period of being a customer of Otter Tail Power Company.

Q. I see. Well, does this list in Schedule B include the municipals that have previously been named as customers of Otter Tail that were taken over by the Bureau of Reclamation?

A. Yes, it does.

Q. And some others besides?

A. Yes.

Q. Yes. Turning to Schedule C of the same exhibit which is a list of cooperatives, what are the facts as to whether there is or is not competition between Otter Tail Power Company and the cooperatives in this service area for [T. IX, 110] business?

A. There is a tremendous amount of competition between us.

Q. Does that include customers both within and without corporate limits of towns?

A. Yes, it does.

Q. You were asked a question with reference to how many towns served at retail by Otter Tail were lost to the co-ops,

cooperatives, and you answered that question. If the question was not limited to retail towns but wholesale customers, would the list be longer?

A. Yes, it would.

Q. I guess those towns have been listed too, in the record, haven't they?

A. Yes, they have.

Q. You mentioned in answer to one of Mr. Anderson's questions that, I am not sure I will get this summarized quite accurately, but I think you said something to the effect that the original purpose of the cooperatives had changed. You weren't asked in what respects. I will ask you in what respect?

A. Well, the cooperatives have some time ago finished the job of serving presently existing non-served people in the area and in search for continued growth why they are very actively competing for other loads including municipalities.

[T. IX, 111] Q. Are the cooperatives subject to jurisdiction of the Public Service Commission in North Dakota?

A. No. They are not.

Q. Is this competition that you speak of with the cooperatives in North Dakota resulted in quite a sizeable number of jurisdictional cases before the Public Service Commission?

A. It certainly has.

Q. Is this true, that in those controversies that Otter Tail Power is a regulated utility and needs to consult the Public Service Commission but the cooperatives do not?

A. That is correct. We have to get a certificate of convenience and necessity to serve any individual, single customer, either non-incorporated villages or outside the corporate village limits and before we get the opportunity to ask for that, of course, the customer has to ask us for service, the other customers in the similar area that ask the cooperative for

service, why we have no chance for competing for that one. It's gone.

Q. I guess what you are saying is the cooperatives don't need to apply to the Public Service Commission for a certificate, is that true?

A. No. They do not.

Q. Now, turning to Schedule D of DX-94, it was pointed out that these are government installations of one type [T. IX, 112] or another that are served directly by Federal Power, I believe the Bureau of Reclamation. Were some of those customers previously direct customers of Otter Tail Power Company?

A. Yes, they were.

Q. Does that include quite a number of them listed here?

A. Most of them that have the "A" suffix to which we wheel were at one time retail customers of Otter Tail Power Company.

Q. They followed this path of becoming preference customers of the Bureau of Reclamation, is that the situation?

A. Yes.

Mr. Field: May I have a minute, Your Honor?

The Court: Yes.

By Mr. Field:

Q. Well, I will call your attention to where the cross-examination left off. I think you were being inquired of as to why Otter Tail didn't voluntarily furnish its facilities to a municipality that was planning to leave Otter Tail by negotiating a wholesale arrangement with the municipality, and I guess Mr. Hartl went into that situation, but as long as you were asked a question of that kind, and calling that to your attention, and with reference to the [T. IX, 113] long-range policy of Otter Tail Power Company in that regard, would you address yourself to that question?

A. Well, I feel the use of Otter Tail facilities by a town presently served retail by Otter Tail, to leave Otter Tail's service would further the erosion of Otter Tail Power Company's system and eventually destruction.

Q. Would that furnish a path that would encourage others to do the same as explained by Mr. Hartl?

A. I feel it would.

Mr. Field: I think that's all the redirect now.

Mr. Anderson: I have one question, Your Honor, on recross.

RECROSS-EXAMINATION

By Mr. Anderson:

Q. How many towns in the Otter Tail service area are served at retail by a co-op?

A. Oh, 50, maybe.

Q. Do you have anything that you can point me to which would indicate how many there are, anything in the record that would show that?

A. Well, we would have to take a road map, and I don't suppose that is in the record. I can—

Q. Well—

A. I believe I can take an old Otter Tail map and [T. IX, 114] start naming them off.

Q. We don't need to do that. Maybe counsel and I can work out something on this which would obviate the need for you to stretch your memory at this point and try to remember all of them.

Mr. Anderson: That is all.

The Court: Thank you, Mr. Nye. You may be excused.

(Witness excused.)

The Court: You just have your one expert on Monday?

Mr. Field: That is right, Your Honor.

The Court: What do you estimate the time that will be consumed with him?

Mr. Field: Well, I would estimate that the direct examination would take a half a day or perhaps a little more than that.

The Court: What is he going to tell us about? What is the gist of what he will say? He is an expert, I gather?

Mr. Field: Yes, in the field of economics. He is going to tell us something about the principles of economics as applied to the field of competition and as those principles are applied in the electric industry and as they are applied to the Otter Tail system, which he [T. IX, 115] has studied.

He has two exhibits, which have been exchanged, one of which deals with Otter Tail's general picture, and he is also going to testify with reference to the threat of erosion, both physically and impairment of credit; and he has an exhibit on the impairment-of-credit-area of the case.

I don't suppose I can do justice to his testimony by making this brief statement.

The Court: Does he have special knowledge as to the Sherman Act, experience with it, and particularize the situation for us?

Mr. Field: Well, he will have to answer that.

The Court: Is he going to talk about dominant market?

Mr. Field: The principles of economics as they affect those things, he will talk about. That is his field, economics.

The Court: He is a professor?

Mr. Field: Yes, he is, and has considerable background and experience.

The Court: All right. See you Monday morning at 10:00.

(Whereupon, an adjournment was taken until 10:00 o'clock A. M., June 14, 1971.)

[T. X, 1]

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
SIXTH DIVISION
(Title Omitted in Printing)

The above-entitled matter came on for trial before the Honorable Edward J. Devitt, Chief Judge of the above-entitled Court, at Saint Paul, Minnesota, on June 1, 1971.

The following transcript contains the proceedings had on June 14, 1971.

(Appearances as heretofore noted.)

* * * * *

[T. X, 2] The Court: Good morning, gentlemen.

Mr. Field: May we call Dr. Walter A. Morton as our next witness.

Whereupon,

WALTER A. MORTON,

a witness called by and on behalf of the defendant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Field:

Q. Dr. Morton, would you restate your name and your address for the record, please?

A. My name is Walter A. Morton, 108 North Spooner Street, Madison, Wisconsin, 53705.

Q. And would you give us a brief summary of your educational background and your experience in the field of Economics and related fields?

A. Until July 1, 1969, I was Professor of Economics at the University of Wisconsin, Madison, Wisconsin.

For the last two years, I have been teaching at the State University of Illinois at Normal, Illinois.

I received by AB and my MA degrees from the University of Michigan. I then became a graduate student at what is now called the Brookings Institution, Washington, D.C., from whence I went to the University of Wisconsin for graduate [T. X, 3] work, where I taught and also took my Ph.D. degree.

I did post-graduate work at the University of Chicago and the London School of Economics.

Ever since I finished my graduate work, I have been concerned with the University of Wisconsin in all lengths, and since I finished my work at the University of Wisconsin, I have been teaching elsewhere, as I have indicated.

On some occasions I took leaves of absences to teach elsewhere and have been a visiting professor at the University of Missouri and also have been a lecturer at Pamona College, Claremont, California.

I have been a member of the American Economics Association and the Midwest Economic Association, at which I also served as president.

My work has covered many aspects of economics; primarily however, those relating to the financial affairs connected with money, banking credit and finance. I have given lectures at a number of universities in addition to my teaching there on some regular assignment. These include lectures at the University of Minnesota, University of Chicago, University of Illinois, University of Missouri, University of California, Los Angeles State College, Michigan State University, Iowa State University, Oklahoma State University, Southern Methodist University, Wisconsin State University, Miami University, and the State of Georgia.

[T. X, 4] I have also given lectures at meetings of the American Economics Association and the Midwest Economics

Association, Industrial Research Association, the Industrial Conference Board, Town Hall of Los Angeles, and other groups.

[T. X, 5] I have had some outside experience in connection with various corporations and organizations. I served as a member of the Transportation and Communications Committee of the United States Chamber of Commerce for a period of three years. I was an adviser to the economic committee of the American Bankers Association for three years.

I served as investment counsel to an insurance company for a period of eight years and I served as a member of the State of Wisconsin Investment Board from 1963 to 1969 to which I was appointed by the Governor and confirmed by the State Senate. This board has responsibility for the investment of all the pension funds of the State of Wisconsin as well as for the temporary cash balances of the state government itself.

I have also testified before various state and public utility regulatory commissions and before the Federal Power Commission, the Federal Communications Commission, and Interstate Commerce Commission, the Civil Aeronautics Board and the Securities and Exchange Commission.

I have also testified in Canada before a Dominion and a Provincial Commission. Also before the Tax Court of the District of Columbia in a matter concerning General Motors Corporation, and the Circuit Court of Baltimore City, Maryland on a banking matter. Also in [T. X, 6] courts in Arizona and Nebraska.

That, I think, briefly states most of my activities and experience.

Q. Thank you, Doctor. Now, Dr. Morton, have you studied the economic aspects of competition, monopoly and the rules to prevent or regulate either of those situations?

A. Yes. That is a part of my general study of economics. I taught a course at Pamona College on this particular subject relating economic activity to competition and to regulation by the courts and administrative bodies of so-called monopolistic activities.

My main concern, however, in this area has been in the field of public utility economics which I studied as a graduate student and have maintained my interest.

In that area I have been connected with the economics of electrical utilities, telephone companies, gas distribution companies, gas pipelines, gas producers, the eastern and western railroads of the United States and perhaps some collateral areas dealing with these types of concerns.

Q. Before we get to the particulars of the application of these rules to public utilities and related matters, it might be interesting if you would discuss the subjects of classical economics and institutional economics and their relationship to the general competitive field.

A. The classical economics, that is economics stemming [T. X, 7] from Adam Smith through Ricardo and James Stuart Mill was primarily concerned with the operation of a competitive system.

Institutional economics grew up when it was seen that in the actual world in which business functioned, that government and government agencies had a significant part in the regulation of private enterprise, particularly that part of private enterprise which embodied group activities such as labor unions and perhaps even monopolies. Therefore, my interest in economics has been always concentrated upon the actual operation of business firms and organizations within the economic system and not merely with the abstract geometry and algebra of some economic theories. Most of those don't interest

me at all, and I find them to be of little relevance or significance to my practical work.

Q. Could I ask you generally what the purpose of competition is from an economic standpoint?

A. The purpose of competition is to allocate resources to the best use in the economy and to insure that the user of the goods that are produced is able to buy them at a fair price.

The function of competition, I think, can best be understood with reference historically to the function of monopoly in early periods. If we go back to the Elizabethan Period, we find that competition was, of course, [T. X, 8] the accepted way of life. However, the government who had power could confer monopolies upon those individuals who did a favor for the crown. The crown often rewarded generals who fought the battles for the king and others by handing out land to them.

Another way of doing it was to hand them money, but the king's purse was usually short so that instead of handing them money directly, they would grant upon them a monopoly so that some of the earliest monopolies were created by government, by Queen Elizabeth, for example, who conferred monopolies on some aspects of the East Indian trade that enabled the monopolist to make a profit above what he could have made under ordinary competitive practices.

Then the English law was always abhorrent to monopoly but it was exercised usually against the weaker classes of society who couldn't resist the power of government. For example, the working men were not allowed to form unions, and unions were considered monopolies and conspiracies which were abhorrent to the common law, and they were cracked down upon and destroyed or limited or made illegal.

Then there was another form of monopoly, a third form. I would call the first a governmentally created monopoly. The

second was a contrived monopoly by the workers or any businessmen who sought to create it. Both of these were automatically, unquestionably considered against [T. X, 9] the public interest, but in the case of the queen's monopoly, nothing could be done except to take power away from the queen and that was, of course, impossible, at least for several hundred years.

However, now we have a monopoly which we call a natural monopoly which is more related to this case. It existed when facilities to serve the public at some occasion, the location were scarce, such as a wharf or a dock where the boats had to come in to dock and to unload their goods; or a warehouse, and since these facilities were limited by nature, it was believed that the owner of them might charge an exorbitant price or might not treat all of the shippers fairly. So one of the earliest forms of regulation was a regulation of what is called natural monopoly.

I want to call attention to the fact that this form of natural monopoly is not the same as natural monopoly now in the electrical utility industry because it is physically possible if one doesn't care about the environment to despoil the countryside by building dozens of transmission lines, and to despoil the cities by building dozens of lines within the cities, and having ten telephone poles where there should be one. It would be quite difficult but it's still physically possible, but we call this a natural—we call electrical utilities a natural [T. X, 10] monopoly because under the conditions of decreasing costs which exists in the electrical utility industry, there would be a tendency for only one firm to survive.

I should, however, explain what is meant by decreasing costs. By decreasing costs we mean that as the size of the efficient unit increases there is room for less units. Ultimately if an industry is faced with decreasing costs, it will tend to-

ward monopoly, and this was seen in the early history of the utility industry.

Therefore, because of the tendency toward decreasing costs, natural monopolies were accepted as necessary consequences of a nature of the industry. Man did not determine the nature of the electrical industry. That was determined by the Creator when he created the universe and made electricity as it is, so that it has to be transmitted over lines and that the duplication of these lines is needless waste.

I have seen the fanciful suggestion of some people that we may come to the day when electricity will be transmitted like radio waves and then we can have the ideal of perfect competition where you can have generating plants set up all over the country transmitting radio waves without transmission lines, without poles or without any of these facilities; and whether that will be subject to decreasing cost, no one knows, but that's a fanciful suggestion.

[T. X, 11] As the industry exists, duplication of facilities is economically undesirable, and if attempted it leads to monopoly.

I am informed, for example, that there is nothing to prevent me from starting another electric company right here in St. Paul to compete with Northern States Power Company. I might say that I haven't even contemplated and I have never heard of anybody who would contemplate doing it.

Now, the reason they wouldn't do it isn't that Northern States Power Company has a legal monopoly, they don't have such a monopoly, but it would be practically impossible for a new company to come in here and duplicate all the lines, and if they did, then there would be a struggle for customers, and the company that is most powerful would keep cutting rates until it bankrupted the opposing company.

This has been the actual history, by the way, of the growth of electric utilities in the United States and their integration into large systems of generation, transmission and distribution.

Q. Well, we have gotten into the application of these rules to the electric industry, which is fine, and you have spoken of natural monopoly as it applies to the electric industry and the rule of decreasing costs.

Is that similar to what we have been hearing about, the advantages of scale?

[T. X, 12] A. That is another word for the advantages of scale, meaning that the bigger and the bigger the plant, the less the cost per unit. Therefore, the greater advantage of scale, the less will be the number of plants that are required to furnish a given output.

I might add one thing in clarification. The word "monopoly" simply means a single seller, and we use the word oligopoly to mean more than one seller, two or more, and the distinction between the effect of oligopoly and monopoly tend to disappear as one analyzes how two firms would act in the market if they controlled the whole market, or three firms. People contend that when you have, say, only three firms in the automobile industry that, in effect, you have the same result that you would have under monopoly.

I have not seen that proved, neither do I entertain that view, and I do not think it can be proved.

I do cite it as an example of the fact that whether you have one competitor or two or three may not make a profound difference.

However, our laws are stated always in terms of monopoly because the terms duogopoly and ologopoly, more than two, were not in common use back in 1890 or subsequent thereto when these laws were promulgated.

Q. In the early part of your answer, if I can refer to some general principles before going forward with the specific [T. X, 13] application of them, you referred to competition producing a fair price.

What is a fair price from an economic standpoint?

A. A fair price is a price at which a competitor producer could furnish the service, if permitted to do so, and it is determined if there are many producers in the market. A fair price could also be a monopoly price if it simulated or attempted to simulate the competitive price and under regulations of electric utilities and other utilities, public utilties commissions attempt to set a fair price. They do it by what we call economic simulation, attempting to figure out what that price would be if it were established in fair and competitive markets.

They therefore take into account the cost of production for all the materials used as these prices are determined in the competitive market, plus a fair return on the capital employed in the industry.

This is one of the crucial issues for public utility regulation. Therefore, a fair price can exist under competition and it can exist, as well, under monopoly that is subject to regulation. The tendency of our American economic system is not to try to destroy natural monopoly. That would be like King Canute's efforts to sweep back the sea. Natural monopoly must exist, because under decreasing costs, competition destroys itself. Therefore, natural monopoly must be [T. X, 14] regulated and has been regulated ever since Elizabethan times.

Q. Taking the theme of natural monopoly and applying it just, for example, to whether the small towns served by the Otter Tail system, what is your view as to whether service in town A for example, is or is not a natural monopoly, and the reasons for your opinion.

A. I will speak with reference to Elbow Lake because I have been up to Elbow Lake and have traveled through the town and have seen the plant. I do not regard it feasible to have two electric companies, either municipal and public or both municipal or two private companies serving the town of Elbow Lake.

Each one, if he acted as a competitor, would try to increase his business by cutting rates, and he would continue to cut rates until he could not cover his depreciation, his overhead cost and his capital cost and would drive the other out of business.

Therefore, no private capitalist, whether permitted to do so by the town of Elbow Lake or the State of Minnesota, would voluntarily go out and try to raise capital to duplicate any system in the town of Elbow Lake. They wouldn't try to duplicate Otter Tail's system when it was in there and they wouldn't try to duplicate the system of that municipality because they would be quite sure to lose their investment.

This is the real deterrent to duplication of a [T. X, 15] system in a natural monopoly situation. It does not pay. It results in loss of investment. People know that from long experience as well as from theory, and therefore, it isn't even attempted.

Q. Does that mean that natural monopoly, as you have described it with reference to town A or Elbow Lake, is or is not subject to potential competition for the whole town itself?

A. Well, it would be subject to potential competition if the natural monopolist would be so foolish to try to extort a very high monopoly price, someone might take the chance of losing money and coming in there.

Second, in a town like Elbow Lake, it is subject to potential competition from the village itself who may end the franchise

of the private operator operating in that town and build its own municipal plant.

Third, it may be subject to competition from some other private source who might be able to take away portions of the business. But on the whole, as I observed it, Elbow Lake is no different from any of the other towns that I noticed in the Otter Tail system. It's not different from any other system. There is usually only one service line to each house. Each individual cannot say, "I think this morning I am going to take my electricity from Otter Tail. Tomorrow morning I think I will take it from Northern States Power and [T. X, 16] perhaps the next day I'm going to ask Commonwealth Edison to come up and serve me." That's not possible, as it is, let's say, with grocery stores where you can not only go to any store that you wish, but you can go out of town to buy your groceries.

So the notion that competition is applicable to the service of a single community such as a town in Otter Tail's system is, to me, a practical and economic absurdity and no one seriously entertains that anywhere in the United States, I should say, except perhaps in some portions of Otter Tail's territory, if that is true.

But I have not found it seriously entertained anywhere. Usually it is agreed to, that either one company or another must service a town.

Q. Coming to Otter Tail Power Company's system, have you made a study of it in connection with your study of this case?

A. Yes, I have. I have studied the historical development and the operation of it.

Q. We will get to your exhibit in just a minute, but in general, what is the type of system that Otter Tail Power Com-

pany has developed as to its being integrated or otherwise, or however you want to describe it?

A. It is a system in which there are some 460 small towns and villages which are interconnected through [T. X, 17] transmission lines furnished by Otter Tail to bring power to them from central generating stations.

Each one of these towns, of course, is served by Otter Tail alone with some modifications from the fringes of the town, but on the whole, the average residential owner buys his power from the same company every day, namely, Otter Tail, or if he happens to be in that part of Otter Tail's territory served by municipalities or coops, he will always buy from the municipality and the coop the same day. He doesn't buy from one company on Monday, another company on Tuesday, and he doesn't bargain about the price.

So for all economic purposes, the distribution systems of a monopoly of the service area within that town that they serve, subject, of course, to some of the modifications that have already been described, they do not operate as a competitive system, let us say, as the grocery stores operate in that territory.

Q. What is an integrated utility? That term has been used with reference to Otter Tail's system.

A. Well, there are two forms of integration. One is horizontal integration and the other is vertical integration.

By horizontal integration, we mean where the various functions are integrated within the same company. Otter Tail distributes electricity to 464 towns. We call that horizontal integration. They transmit electricity all over its territory. We call that horizontal integration.

[T. X, 18] Then they manufacture or generate electricity in various parts of the system. Vertical integration is when

we combine generation with transmission and distribution. This is usually done for reasons of economy and for historical reasons. Most electrical systems in this country grew up as vertically integrated organizations for the simple reason that no one wanted to start up a generating station unless he could transmit the power to the ultimate consumer. Therefore, he wouldn't think of putting up an electrical utility that was not vertically integrated. He wouldn't build generating stations without the ability to transmit from the generating station, and he wouldn't want to transmit unless he had a customer to transmit to.

So the simple and logical organization was to build integrated systems in this country and most of our electric utilities are integrated systems.

Q. Is Otter Tail Power Company an integrated system? I guess you perhaps told us that.

A. Otter Tail Power Company is both a horizontally and vertically integrated system in that it resembles practically all other utilities in the United States. It is no different from them. They are natural monopolies due to the fact that they operate under the law of decreasing costs. Otter Tail operates under the law of decreasing costs.

[T. X, 19] No sensible man would try to raise capital to compete with any of the electrical systems in this country that are already established because he would be fearful of losing the money even if he could get an investment banker to put it up. Otter Tail is in exactly that same position.

Q. With reference to the principle of decreasing costs or the advantages of scale, I guess they are the same subject matter, does that principle apply to the different levels or functions, namely, generation, transmission and distribution sep-

arately or are there advantages of scale at each function and if so—

A. There are advantages to scale in generation although how far these extend we do not know. They do not extend indefinitely. One cannot ascertain that by mere extrapolation to assume that if in the past bigger generating plants were more successful, we can keep increasing them indefinitely. That's a matter of physical experiment. Indeed, many of the big companies are having a great deal of trouble with the big plants.

Now, the same is true of economies of scale in transmission, but, of course, the degree to which this can be practiced is a matter of technology. It's a matter of physics and engineering and so on. It can't be deduced from economics or by mere extrapolation.

Now, so far as economies of scale of distribution, [T. X, 20] they are very obvious. For example, if instead of Otter Tail owning its own distribution system, it had 464 separate and independent corporations in each one of the towns, and each corporation was a corporate entity and had a board of directors and had a president and a vice-president and a general manager, maybe even lawyers, I don't know how much it would cost to run those 464 organizations; but it's obvious that if this was the economical way of doing things someone would have thought of it in the past, but the tendency has been the other way, to say that it's better for one company to own all of the distribution outlets and to operate those distribution outlets as a unit because the law of decreasing costs applies to distribution as well as to generation and to transmission.

And next it applies to all of them combined because sometimes the same personnel can be used for all three functions

and distribute their time and their overhead and their knowledge over all three functions at the same time.

At least we must say this, that unless we conclude that the people who operate the electric utility industries in this country are simply all wrong all of the time, this must be the best way of doing things because that is the way they do them, and that is the way that regulatory commissions regulate them under that assumption.

I am quite sure if there were any positive [T. X, 21] evidence that we should break up utilities to separate functions of this type in the public interest because they would furnish electricity cheaper, somebody would propose it and although I am quite familiar with regulatory practices throughout the United States, I have never heard of any such proposal by anybody. I have heard them by a few people that I consider out on the lunatic fringe, to use a phrase of President Theodore Roosevelt, but I have never heard anybody who has any serious responsibility proposing to put up money for such a program or policy.

Q. Now, I think perhaps we should come to your exhibit.

Mr. Field: I should say one of your exhibits and I would ask to have this marked.

(Defendant's Exhibit 95 marked for identification.)

By Mr. Field:

Q. Now, this exhibit of yours has been marked Defendant's Exhibit 95.

Mr. Field: First, it's been exchanged with counsel, and I believe the foundation has been admitted, and we offer it in evidence.

(Defendant's Exhibit 95 offered in evidence.)

Mr. Anderson: There is no problem [T. X, 22] with foundation, but I have objections on grounds of relevance to several of the schedules.

Mr. Field: Perhaps I had better go through it then so we know what we are talking about. I will need to refer to it in examining the witness.

By Mr. Field:

Q. Dr. Morton, perhaps we can go through your exhibit and comment briefly on the different sections of it and if we will turn first to Schedule 1 which is comprised of two sheets. What generally is shown on Schedule 1, Doctor?

A. Schedule No. 1 shows how the Otter Tail system has grown. It shows that it grew by putting together various towns that were either isolated or in small groups either because these towns wished to be integrated into the Otter Tail system or the owners of the companies so located thought it would be more profitable to do so.

In essence, this schedule is descriptive of the general tendency in the United States that began after the year about 1910 and was acclerated during the 1920's when electric utility systems were integrated and combined because the new integraters found that they could reduce costs drastically and thereby increase their net profit.

Then the electric utility system became subject to regulation, first in Wisconsin, then in New York and [T. X, 23] then in other states, and this limited the profit.

However, the number customers began to grow as the territory expanded.

Now, in Otter Tail's territory the growth of customers is largely dependent upon the growth of population in this area and may or may not be typical of what happens in other areas. For example, it is not at all typical of what is happening in an area like Washington, D.C. where the population keeps exploding.

The next column showing the kilowatt hours shows that the kilowatt hours expand faster than the towns served or the

customers served for the reason that we are all familiar with, namely, that as people acquire sufficient resources to buy more appliances and to light their houses and heat them better and cool them better, they use more electricity per unit. Correspondingly there is a growth in electric revenues.

Now, if it was desired to have competition in the electric industry, that fact could have had an influence back in 1907 when Otter Tail served only two towns, and if it was believed that competition was the way to get a fair price for electricity, all of the growth of electric utility in this industry in this country should have been prevented by law. That it wasn't prevented by law is a credit to the common sense of the people who knew that [T. X, 24] competition in the same service area as I have depicted in a given town was not a desirable way to maintain the fair price and that while it could be depended on to some extent, it should not be used to inhibit the growth of an integrated industry, and that's what the history of Otter Tail shows.

Otter Tail has competition. It is quite different in this respect than most of the electrical utility industry in the United States.

Q. In what way, Doctor?

A. Because most of the electric utility industry in the United States has very little if any competition. The fair price is determined primarily by regulation whereas Otter Tail has competition in these small towns, and the competition can be made effective as we have seen by the towns either threatening to or actually ousting Otter Tail from the town if they are dissatisfied with their services. For example, I can't conceive of the City of St. Paul here ousting Northern States Power from the City of St. Paul. I don't know what they would do for electricity, but I can conceive of Elbow Lake ousting Otter

Tail because I have been there. I have seen that they have ousted Otter Tail, that they replaced all the telephone poles and the lines in the town and forced Otter Tail to send in a crew to take down the lines and to take down the telephone poles, all at considerable expense and at a great loss to Otter Tail.

[T. X, 25] In that respect, Otter Tail is different from a metropolitan utility or one where it is physically inconceivable for competitors to oust the company from its service, and therefore it's more vulnerable to any competition or threat of competition.

Q. Are there also differences in the basic laws under which utilities operate in other states where there are, perhaps, indeterminate permits, and so forth?

A. In most states where there are indeterminate permits, utility is assigned a given territory and in which no other utility may enter and compete, and the property built by the utility under such indeterminate permits can be taken over by the municipality, but they must pay a fair price.

Now, as I understand it, in Minnesota and North and South Dakota, the law of eminent domain prevails, so that any municipality that wanted to condemn the property of Otter Tail Company could do so, but if they did that, they would have to pay a fair price for that property; whereas ,if they can simply oust Otter Tail at the end of its franchise, Otter Tail loses the value of that property completely or has only the salvage value left, minus the cost of removal.

This is an extremely wasteful process to which Otter Tail is subject, which utilities in other states are not subject to at all. But in other states, it is, of course, [T. X, 26] understood that any municipality which wishes to take over a utility operating in its territory must pay the fair value of the property and must pay severance charges, as well.

However, very little of this is done, because these utilities are, on the whole, doing a job which satisfies the people of the several states, and if they are not satisfied, they have the appeal to the regulatory commission and the legislature.

Q. Then, passing on to schedule 2, if you will, Doctor, and briefly tell us the material that is shown there, not all the figures, but, in general, the purpose of schedule 2.

A. I will not repeat the figures on schedule 2, but merely to indicate that the business of Otter Tail is distributed between Minnesota, North Dakota and South Dakota.

The bulk of the business is in Minnesota and operating under the rules and regulations of Minnesota.

I want to call attention to the fact that in North Dakota, this company is subject to the jurisdiction of the North Dakota Utilities Commission which have the right and the power to set the rates and which actually exercises that right and that power, and that it is Otter Tail's policy to use the same rates throughout the system as they are authorized in the State of North Dakota.

So that, in effect, while Otter Tail is not regulated theoretically in Minnesota or South Dakota, it is [T. X, 27] regulated de facto by the orders of the Public Utilities Commission of North Dakota.

Mr. Anderson: Mr. Field, I wonder if I could ask a clarifying question about schedule 1?

I am wondering whether those customers are retail customers or retail and wholesale customers?

By Mr. Field:

Q. Referring back to schedule 1, Doctor, under the heading "Customers" are those retail customers or wholesale customers, or what?

A. They are the total customers.

The Court: Is there some other particular schedule you objected to or have questions about? Maybe you can get quicker to it that way.

Mr. Anderson: I have objections to schedules 6, 7, 8, 10, 11, 12 and 13, all of which, it seems to me, get us involved in an intermural dispute as to whether it is wise or unwise to set up a municipal power operation.

It is my understanding that Your Honor didn't want the case to get immersed in that sort of a discussion. It seems to me it would go right smack into it here with this type of information.

For that reason, I object to its [T. X, 28] admission. It seems to me it has no relevance.

I will stipulate that Otter Tail Power Company pays taxes; that those people who receive dividends from Otter Tail pay taxes on the dividends; that those people who get interest payments, pay taxes on their interest, and things like that, if that would help.

Mr. Field: If the Court please, I think as we go along the relevancy will be developed. It bears upon the part that public interest plays in the application of antitrust laws, not an argument for or against going into municipal operation, but the economics that are involved in the application of those principles.

The Court: The whole exhibit may be received. You may go ahead and question him now about his theory or whatever it is you have in mind.

(Defendant's Exhibit 95 offered and received in evidence.)

By Mr. Field:

Q. Without going into the details, but so we don't miss any of the import of the schedules, I direct your attention to the schedule 2. Had you finished your statement with reference to that?

A. Yes, sir.

Q. All right. We will go on then to schedule 3. What is shown there and what is the general purport of it?

[T. X, 29] A. The purpose of schedule 3 is to indicate what proportion of Otter Tail's system is devoted to the various functions of production, transmission and distribution. It shows that roughly one-third of Otter Tail's system is devoted to the distribution of electricity and the other two-thirds to production and transmission. This is particularly significant when an attempt is made to allocate the costs of production and transmission for the sale of electricity at wholesale, because so long as Otter Tail must do production and transmission, it is subject to the tax laws of the state, of the United States and of the municipality, and so long as it must cover its total cost of operation, the electricity which Otter Tail might sell at wholesale, if so directed by the Federal Power Commission, would have to include in it roughly two-thirds of all the taxes that Otter Tail has to pay.

Therefore, the municipalities whose chief purpose is to duck the payment of these taxes and to put the burden of these taxes upon the rest of the citizens of this country, would not be able to avoid two-thirds of the burden of taxes, but only by one-third, and this would make the municipal ownership of plants less attractive than they would be if they had to pay taxes on all of the production, transmission and distribution. It means this, that, in fact, I doubt as an economist [T. X, 30] that there would be much agitation at all for separate and independent distribution systems in these various towns if it were not for the fact that these towns hope to escape even this two-thirds payment for taxes for the electricity furnished by Otter Tail by obtaining electricity from some other sources which to them was tax-free. This is the significance, in my

opinion, of this problem. It states what the real economic issue is.

The real economic issue is this, that under a system in which Otter Tail furnishes the power wholesale, the municipalities still have to pay two-thirds of the taxes that Otter Tail pays; whereas, if they get around Otter Tail some way and to buy their power direct from the Bureau of Reclamation, they can hope to escape this portion of the taxes. This is at the very basis of the whole movement toward independent distribution systems, despite the obvious inadequacy of such a system from an economical point of view.

Q. Well, then, if that completes your statement on schedule 3, we can turn to—there are two charts, I guess, and chart 1 is the map in the pocket parts, is it not, of your exhibit? We have several maps here in this proceeding, and now this adds one more. Perhaps it is self-explanatory.

In general, what does it show, without any detail?

A. The map needs no comment. It shows the Otter Tail system and the locations of the various plants and distribution [T. X, 31] centers within the system. Chart number 2 simply shows the purchases of electricity from Otter Tail. The bulk of that electricity goes to residential users, commercial users and large commercial users, and that distribution would probably be essentially the same whether Otter Tail owned the system or whether it was taken over by someone else. That is determined by customer demand.

Q. Will you go to Chart 3, please?

A. Chart 3 visually shows the same thing. It shows, on the left-hand side, who furnishes the dollars of revenue to Otter Tail and what becomes of the dollars of revenue. The most important factor to which I want to call attention is that out of each dollar of revenue received by Otter Tail in 1969, and

I might add that I have examined other years as well, and 1969 is not a typical year, rather, it is typical of the ordinary course of events.

Q. I guess the year 1970 is on this exhibit. I believe you referred to 1969?

A. Yes, I had that revised. Well, then, it bears out what I was saying, that 1969 and 1970 are typical years and not extraordinary years. Yes, for 1969 I shows taxes to be 22 cents out of every dollar of revenue. In 1970 it was 21 cents because the tax rates changed. The significant thing about this charge is that there are some expenses that will be incurred no matter who operates a utility. Some will be greater and some will be less depending upon the efficiency of management.

[T. X, 32] For example, taxes here of 21 cents, however, are paid by Otter Tail. If this were a municipal utility they would pay nothing whatsoever. So that the encouragement to these municipal politicians to take over the utility is that they have 21 cents to play with as they see fit. If they charge the same rates they can use that 21 cents in a wasteful manner, and that's what they do on many occasions, they save the 21 cents—

The Court: I think you are right, Mr. Anderson.

Mr. Anderson: I was going to say, Your Honor, if we are going to get involved in this sort of thing I would like to request the opportunity to call the people from Colman and Aurora who were here who can tell you how much money they got in the town treasury.

The Court: I don't have the impression this man—how is he going to help me? Tell me in a nutshell what he is going to do? Up to now he has been summarizing arguments against municipal ownership and for investor ownership. That's fine. We tried to avoid that controversy here. What is he going to

do? In one sentence what's the gist of his testimony going to be? What subject?

Mr. Field: These principles will be applied to the threat of erosion which will result from [T. X, 33] the request that Otter Tail be compelled to serve at wholesale to a town that seeks to leave it or compelled to wheel to a town that seeks to leave it. In other words, to furnish its own facilities to aid a town in leaving its system.

The Court: What question are you going to ask him that's the key question?

Mr. Field: I will ask him that question. I was laying the foundation for the basis.

The Court: I looked through all these exhibits. I think I understand them. Is there something else about them that isn't apparent from what the exhibits reflect? They are mostly statistical.

Mr. Field: Well, I presume that what Your Honor says, a good many of these schedules are self-explanatory.

The Court: Yes.

Mr. Field: For example, Schedule 4 illustrates rather specifically and perhaps dramatically that nature of the towns that are served and population brackets. The number of towns and the smaller towns and so forth that we have been talking about generally, but there are some specifics here that demonstrate it rather effectively.

Schedule 5 are the 20 largest retail [T. X, 34] towns served by Otter Tail, it does the same thing in a different way, another approach, and so on as we go through the exhibit.

I presume what you say is that they are self-explanatory to a large extent which is true, and except as it might be helpful to comment on the subject matter from the man who supervised the preparation of the exhibit, we can perhaps—

The Court: Well, his comments have been argumentative in nature pointing out the advantages of the investor-owned utility over municipal. That is good for a legislative chamber or some hearing commission or maybe in the city hall up at Elbow Lake, but I don't know as it's going to be helpful to me here, and we have deprived counsel over there of the opportunity to go into that. I don't think it helps us at all.

Mr. Field: Well, I had the thought that it would have a bearing on the economic principles applicable to some phases of the antitrust laws. I wasn't intending to argue the merits that might be argued in connection with a municipality either going municipal or not.

The Court: He is arguing, maybe you didn't intend to. He speaks of politicians getting hold of 20 percent extra and so forth. The tone of his [T. X, 35] testimony up to now has been not for a judicial chamber but for some other chamber. That is my impression of it. I thought I might as well tell you early in the game so we get to the point, whatever the point is that he has.

Mr. Field: Well, it has a bearing as we see it on the public interest phases of the case which may be unimportant.

The Court: Maybe you want to visit with him while we all recess for about ten minutes.

Mr. Field: If it's time to recess.

(Recess taken.)

Mr. Field: May it please Your Honor, responding to the Court's suggestions, I don't propose to ask any more questions about the details of these schedules in Exhibit DX-95, but I would like to add this comment, if I may, to what I previously stated with reference to the relevancy of this material. It does have a bearing, as we see it, upon the potential erosion possibilities of Otter Tail's territory. They do have a relevance to

the actual situation in which Otter Tail lives and in which the competition that we are talking about exists, and the forces, economic forces which it has to meet and consider in taking whatever actions or policies that it desires, that it decides are necessary for the operation or maintenance or survival of its business.

[T. X, 36] So it is an economic climate, it's a practical situation that we are trying to present to the Court in which these things take place. We just can't discuss this general situation without some facts in that regard, without getting into philosophies, but the facts of life as they actually exist.

The Court: I yield to you.

By Mr. Field:

Q. Now, Doctor, coming specifically to the situation in which Otter Tail operates, and specifically to the problems that are involved in this controversy, I would like to ask you to assume for the purposes of interrogation that Otter Tail is compelled to furnish its own facilities to aid or support a new municipal system that wishes to leave Otter Tail's retail service and to go into business for itself and to furnish either wholesale or wheeling service in that respect.

Assuming that situation should obtain for the purposes of some questions, what would be the economic forces or principles which would come into play, if any, and affect Otter Tail's integrated system?

A. If Otter Tail were obliged to use its own facilities to destroy or to help to destroy its own system, it would be operating contrary to the principles of the liberal economic philosophy embodied in the antitrust laws, [T. X, 37] all the way from Adam Smith to the present day.

The theory of competition assumes that each firm shall attempt to maintain its own resources and use them most

efficiently to produce at the lowest cost and the greatest net profit.

If Otter Tail is to operate under the rule of the competitive system, it should not use any of its facilities to destroy itself. It is exposed to the competition of other businesses, but those other businesses must put up their own capital and attempt to operate to the advantage of the consumer in such a way that people will prefer their service to that of Otter Tail.

In my opinion, therefore, if Otter Tail were either under order or of its own free will to use its own services to destroy its own capital, it would be operating contrary to the accepted principles of competition and would be operating contrary to its own interests and would make impossible also the proper allocation of resources, which is the objective of the competitive system.

Q. In your opinion, what effect would such compulsion and economic forces have on Otter Tail's integrated system? Would it precipitate erosion or not?

A. It would precipitate erosion. In my opinion, it would have the same effect as if any other company engaged in manufacturing, wholesaling or retailing were [T. X, 38] deliberately to injure its own business in order to keep its competitors alive. This is actually contrary to the principles of fair competition, and any company which deliberately drove away customers or acted in such a manner that customers would not come to it for the purpose of aiding a competitor, would be acting contrary to the principles of fair competition and contrary to the national interests.

The theory of competition assumes that he who serves the best will profit the most. It does not assume that incompetent service of the public must be protected in their incompetency

by the willful action of competitors to damage themselves in order to permit the competitor to survive.

Q. Do the competitive principles that you have described require a firm to turn over any portion of its property for the use of its competitors?

Perhaps you have answered that question, but I would like to ask it specifically.

A. They do not require it. In fact, true competitive principles inhibit such action, and if such action is taken by any firm to deliberately enhance the position of competitors, it is acting contrary to the liberal economic philosophy, to competitive principles and to the antitrust laws as they have heretofore generally been [T. X, 39] understood.

If, for example, my hotel deliberately gives me rotten service to drive me out of that hotel into the streets merely to keep in business some other incompetent innkeeper, he is acting contrary to the public interests and contrary to the principles of true competition.

Q. Coming to another phase of this same subject matter that's been mentioned by other witnesses, I will ask you if the availability of what some witnesses, Mr. Hartl, in particular, called underpriced government power and others called low-cost government power, whether that is an economic factor to be considered in connection with threatened erosion of Otter Tail's system, in your opinion?

A. It is a significant economic factor. It is an economic factor, however, created by law and which would not exist in the ordinary course of a free competitive enterprise. It is a special privilege equivalent to those special privileges given by the kings after the Middle Ages to their own favorites in the form of monopolies.

Q. Now, what are the economic benefits to be obtained from maintaining Otter Tail's integrated system as a viable operating system, if any, in your opinion?

A. The benefits are that it confers the advantages of scale, of good and efficient management upon all of the customers in all of the 465 towns which Otter Tail is now [T. X, 40] serving; that any erosion of the system to any significant degree will raise the costs of operating that system, and if Otter Tail is to remain in business, it will necessarily raise the rates charged to the remaining consumers of that system.

Otter Tail is especially necessary for many of the smaller towns in this system which under no presently conceivable circumstances would have the ability to put in an independent system of their own or one that was directly connected with some large source of power supply.

Q. What are the economic detriments which would be suffered from eroding or destroying Otter Tail's integrated system? I believe you have touched on that, but I would like to ask you the question specifically.

A. The detriments, first of all, would be to Otter Tail's credit. If either by law or by voluntary action of Otter Tail, Otter Tail destroys its ability to operate economically, it will begin to destroy its credit. Its credit will be destroyed in the following manner.

People will be less willing to buy its common stock and then they will cease to be willing to buy preferred stock or the bonds of Otter Tail, except at rates of return that will be highly detrimental to Otter Tail as a corporation and to the customers of Otter Tail who must ultimately pay, among the total costs, the cost of capital [T. X, 41] to Otter Tail.

Q. We will get into the credit impairment subject a little further in just a minute.

Let me ask you this before we do that. What are the economic benefits or detriments that will be obtained or suffered by eliminating or eroding the distribution function or the distribution systems on Otter Tail's properties by one town and other towns following, setting up their own distribution systems, focusing our attention on the effect of the loss of distribution system in those towns?

A. First, it would erode the economies of scale in the distribution system, because to set up separate distribution systems in each of the 465 towns or any significant portion thereof would be uneconomical as compared to operating that distribution system as a unit by Otter Tail, or for that matter, by any other efficient public utility which may take it over.

This would then require Otter Tail either to become financially illiquid and to cease its expansion program or to raise the rates of these other communities, and urge them, in effect, to get out of the Otter Tail system. Any destruction of any portion of Otter Tail's system is cumulative in effect. It would tend to snowball one town after the other, seeing the advantages [T. X, 42] of getting out of the Otter Tail system, because Otter Tail was charging them a price that included taxes plus the cost of power which may be called underpriced or low priced.

The towns then would tend to quit the Otter Tail system as Otter Tail's costs rose, and one factor would operate in conjunction with the other.

Now, of course, if all of this discussion in which we are engaged has no quantitative significance, if no one really intends to leave the Otter Tail system, if nothing that is done by Otter Tail or by order of a Court or a commission has any effect whatsoever upon any of the communities involved, then I can't understand what the issue is all about. I am assuming

that if there are differences in costs and if Otter Tail can be forced to use its own facilities to destroy one portion of its system, it can also be forced to use its own facilities to destroy some other portion of its system.

[T. X, 43] If, of course, I am wrong about this, and the law says that Otter Tail must only use its facilities to destroy that portion of its system which benefits some particular community, and this was mentioned in the Federal Power Commission hearings, namely, only Elbow Lake, but not to destroy part of its system to help some other part, then, of course, the erosion will be of less significance; but I do not understand upon what principle of equity, I cannot speak for the law, anyone would contemplate that Otter Tail be obliged to destroy part of its system and injure one group of its people for the benefit of some particular customer of Otter Tail or some particular municipality and not for all municipalities in North Dakota, South Dakota and Minnesota.

Q. Coming then to subject matter that's been touched on slightly, and that's the area of the impairment of Otter Tail's credit. Do you from your experience and as an economist, see any threat to the impairment of Otter Tail's credit from these factors that have been discussed in this case?

A. I believe there is a positive danger of a serious impairment of Otter Tail's credit if the principle is once established that Otter Tail must use its own facilities to destroy its own business. It would then be, to my knowledge, the only corporation in the United States that must use its own facilities to destroy its own business.

[T. X, 44] I have not examined every corporation in the United States, but I am familiar with quite a few of them and I know of no other situation which by the rules of competition any corporation or any individual in this country must use its own facilities to destroy itself.

Therefore, I believe that once this fact be known, investors would shy away from Otter Tail securities. I am quite sure from my own experience sitting on a Board which invested as much as $10,000,000 every single month, that we wouldn't touch an Otter Tail security once this happened. There is no rate of return that will induce us to take it because we could never be sure that the prospective or promised rate of return would ever eventuate as a matter of fact.

I don't believe the trustees of the large pension funds or the insurance companies are looking for more Penn Centrals or companies particularly whose managements deliberately or through order of Federal authority are obliged to disintegrate their own business.

Q. I would like to ask you this general question although you have covered it perhaps in specific instance here in your last answer. Would you explain generally the economic and other factors which influence the investment market and the credit of a concern offering securities to that market?

A. The investment market is concerned about the present [T. X, 45] earning power of a company as evidenced by its experience over a period of years and the future prospects of a company, and if they have the future prospects of the company in serious doubt, they will not touch that security no matter what its past history may have been. This presents a very difficult problem as a matter of fact. If I were sitting on the Board of Trustees as I was in the State of Wisconsin Investment Board, and if, as I am sure we don't we had Otter Tail bonds, I would be faced with the serious moral problem of advising on economic grounds the bond man to dump those bonds on some innocent and uninformed widow and orphan because the Federal government had taken action which will eventually destroy their value, and with the moral question

whether I have a right to take advantage of my superior knowledge and dump securities which in my opinion are eventually going to become worthless upon innocent people, that is a very difficult question; but I presume that it has to be answered by the priest or the clergyman. I wouldn't attempt to do it.

All I know is this, that my conscience would be bothered if I were the owner of Otter Tail bonds today and if after hearing about these proceedings and others, I were to order dumping them onto some other people to take the eventual loss simply because they had not had the privilege of hearing all the facts in the case, that's plain dishonorable and dishonest practice, but this may be the problem that will [T. X, 46] have to be faced by many owners of Otter Tail securities.

Q. Let's look at the situation in which the investment analyst, which has been referred to here, would be placed, and from your experience in the investment field, I expect you can do that. What would be his, the investment analyst's outlook and opinion as you see it if this threat of erosion took place as far as Otter Tail is concerned, and in connection with the receipt of further financing by Otter Tail?

A. Well, the investment analyst generally has no conscience. He merely advises on the course of action that is most profitable to his client regardless of its moral nature. He wouldn't be bothered about the things that would perplex me about this because I am not an investment analyst in that sense.

He would simply say if Otter Tail wants to issue more bonds, as they are going to have to in the next few years, let's get a rate for those bonds which will compensate them for what I call this new institution and legal risk which Otter Tail faces, namely, that their business will be disintegrated, and

we will now then insist on a higher rate of interest. We would have been willing to take 8 percent, we will make it 9 or 10 percent, but when they get up to 11 or 12 they will say we don't want them at all because there becomes a limit at which no promised compensation for bonds will induce any responsible institution to buy them.

[T. X, 47] These bonds are bought by pension funds and they have the money that belongs to the civil servants in a state and belongs to the teachers and the University professors and even judges, and they don't feel that they have a right to dissipate that money or to take great risk or to gamble with the future of their client's money.

I think on the whole, that we would at once get a depreciation in Otter Tail's securities and the amount of that depreciation is a matter of individual judgment. The amount of fear, the amount of knowledge that each of the potential investors had, but I still believe it would be appreciable and over a period of time would run into hundreds of thousands if not millions of dollars of additional costs of capital.

Q. I believe you have prepared an exhibit that is illustrative of the extent of impairment of credit and we will refer to that at this point.

Mr. Field: I have to have this document marked as an exhibit.

(DX-Exhibit 96 marked for identification.)

Mr. Field: This is the exhibit that also has been furnished in advance of the trial and I will offer it.

(DX Exhibit 96 offered in evidence.)

Mr. Anderson: No objections.

[T. X, 48] The Court: It may be received.

(DX Exhibit 96 received in evidence.)

By Mr. Field:

Q. Now, generally, Dr. Morton, would you tell us what Defendant's Exhibit 96 shows without getting into the details at least at this point?

A. Well, I want to emphasize above all that this is an illustrative exhibit, that I do not pretend to know, nor do I have any positive way of knowing, the precise deterioration that would result in the credit of Otter Tail. In my opinion it would be substantial, but I cannot quantify it in numbers.

On the first part of sheet 1, I show that between 1971 and 1975, according to the Otter Tail management, they will need to raise about $69,800,000; and then at the bottom of that page, I make an estimate of what the additional interest costs on bonds and the cost of preferred stock would be during this period if the rate that Otter Tail paid went up by 1 percentage point; and I showed that it would raise the actual outlays of Otter Tail for this purpose by $1,664,164.

Q. Now, what period of time does that illustration refer to?

A. Just the years 1971 to 1975.

[T. X, 49] Q. Then if you will turn to sheet 2 perhaps you could explain that in a general way for us?

A. Well, sheet 2 shows what the total cost would be to all security holders of Otter Tail by this impairment of credit equivalent to 1 percent. This would cost about $1,457,187 per year thereafter so long as this impairment credit existed.

Now, I want to point out one thing that may not be readily apparent. The existing stockholders and bondholders who have the credit impaired of their bonds, have no recourse. They are simply exploited by this means. They are in effect cheated by the downgrading of their bonds, and they take a part of that loss as compared to what they ought to be taking on bonds of this lower grade; and the new customers would,

of course, have, as I have shown on sheet 1, tried to make some allowance in the rate of return demanded for the amount.

Now, if it were twice as much, all my figures would be multiplied by 2; three times as much they would be multiplied by 3. I have used only 1 percent because I felt that if one gets beyond an impairment of about 1 percentage point, one is on the road to destruction of Otter Tail's credit altogether.

That so far as I am concerned, the institutions with which I have been connected, would have nothing to do with the bonds of a company that is under this type of pressure [T. X, 50] for its own destruction. There is no reason they should continue to pour money into a company of that kind. They would be derelict in their obligation as trustees if they do so.

Q. One question, Doctor, that might be in the minds of some of those listening to your testimony.

With reference to the credit impairment borne by existing security holders, that assumes, of course, securities are issued and owned by this fund or that fund or that individual at a stipulated coupon rate and so forth. In what way would they be affected by the impairment?

A. They would be getting the same number of dollars they got before but they are only affected in this way, that the value of their securities would be depreciated in the market and if they sought to sell them they would have to take a substantial loss, even greater than they may now be taking in view of the rise in interest rates; and if they sought to sell them and exchange them for other bonds they would have a smaller principal, all of which would have been imposed by this action causing or compelling Otter Tail to destroy its own credit.

I might add that in my view any company that had to do that would become a joke in the financial community in a

short time. Who would want to buy in a company who is out deliberately or by court order destroying its own credit.

Q. Another item on sheet 2 that might be of interest [T. X, 51] to comment on, there are two footnotes. Footnote 1 assumes no compensating rate increase in part of the page, and footnote 2 assumes a compensating rate increase in connection with the lower portion of the exhibit. Perhaps it might be of interest for you to comment on those footnotes?

A. Well, if the company could take over a compensating rate increase to make up for all of the increased costs of debt and for higher returns of the common stock, then, of course, the rate payers would be footing the bill and not the stockholders. So I made it under two assumptions.

Let's assume that this destruction of credit occurs and Otter Tail goes out and raises its rates to the 464 towns who buy its electricity and tells them you have got to pay more for your electricity because our credit has been impaired. Well, then, it will be these people who will suffer.

However, if Otter Tail thinks about that it decides that this would not only be impolitic, but any such effort might be resisted by the North Dakota Utilities Commission and by other forces, they may decide that they have no alternative but to take the loss themselves and impose it on their own stockholders and eventually destroy the value of their own common stock.

Once, however, the value of the common stock is destroyed, it is very difficult to float any bonds. Therefore, [T. X, 52] as the value of your common stock continually depreciates, your ability to float debt securities also disappears. We have that today with the Penn Central.

Q. Those things are interrelated in the financial picture, I would gather, from your description of them?

A. Yes.

Q. Well, then, perhaps at least for the moment we can pass to sheet 3 and ask you what is shown there and the purpose of it?

A. Page 3 shows the rate of the market price to the book equity per share of Otter Tail common stock from '61 to 1970. It shows that before the prospects of this erosion were in the public mind during the conditions then prevailing regarding interest rates and other security prices in the stock market, Otter Tail sold at about 1.7 its book value. We mean then that a dollar of investment on the books of Otter Tail was selling in the market at about 1.7.

However, these ratios have come down for most all electric utility securities. Therefore, I would not, I repeat, I would not draw any assumption regarding the causal relation between the fall in the book value of Otter Tail common stock and these proceedings as too simple an analysis.

I think, however, we may conclude this, that with Otter Tail selling barely at book in '69 and '70, that a further erosion of its value due to the fear of stockholders [T. X, 53] that the company is going to suffer serious difficulty in the future in the way of erosion of its business and impairment of its profits, that it would find it very difficult to float additional stock on favorable terms, and that it would find it almost impossible to float bonds at all unless the company also floated additional stock.

[T. X, 54] A. Indeed, the financial program of the company assumes that its earnings are going to be such that by the year 1973, it will be able to float five and a half million dollars of common stock and by 1975, 5,800,000 of common stock. If you cannot float the common stock, you probably cannot float the bonds at all and the company will be on the

road to illiquidity and inability to carry out its planned construction program.

Q. There is one more column on sheet three, Doctor, if you will turn to that again. I believe it refers in the vernacular of the trade to price earnings ratio, that last column, or don't I describe it properly?

A. Yes, that's what it is called, the P.E. multiple, how many times the current earnings the stock is selling for in the market. I didn't say anything about that because that tends to be similar to the market price to book value ratio. It indicates that people begin to feel when a stock is not doing too well or has poor prospects if the market earnings ratio falls.

Again, I want to repeat there are other causes now operating in all of the financial markets that are bringing down the market price earnings ratio for all stock and this is not true only of Otter Tail.

Q. Now, by carrying forward, perhaps, from that exhibit, and particularly the last page of it, is the rate [T. X, 55] earned on common book equity a significant financial figure in considering this general situation?

A. Yes, it is.

Q. Have you prepared an exhibit since you have been here, since you have come to St. Paul for the trial, with reference to that picture?

A. Well, I had most of the numbers before I came here, but I put them together for this exhibit since I have been here. A utility company—

Q. Just a minute, Doctor. We had better have this marked as an exhibit first.

Mr. Field: I ask to have this one sheet marked as an exhibit.

(Defendant's Exhibit 97 marked for identification.)

Mr. Field: First, may I say, Your Honor, as evidenced by what the witness has just said, this is not an exhibit that's been exchanged prior to the trial. It's been prepared while we have been here, so that that is the situation.

I suppose I had better lay a foundation and then see what problems there are.

The Court: Do you object to it?

Mr. Anderson: I don't have any objection to this.

[T. X, 56] The Court: Exhibit 97 may be received.

(Defendant's Exhibit 97 offered and received in evidence.)

The Court: Are you going to leave town today, Mr. Anderson?

Mr. Anderson: Well, I had been entertaining the hope to leave.

The Court: I was looking forward, when the evidence is through—and it will probably be through today?

Mr. Field: We aren't far from through with the direct examination. I don't know what will follow after that.

The Court: I was looking forward to having a colloquy with counsel, and maybe we can do that all this afternoon. I don't want to detour you from going back to your family. I am sure I would benefit by having the observations of both counsel about some of these things that have come up. I have a lot of questions that I would like to ask so I can better understand what your respective theories are. I thought I had better mention that now. I don't want to keep you here any longer than necessary.

There is a plane that leaves at 5:50 or 5:30, I believe.

[T. X, 57] Mr. Anderson: That is all right.

The Court: Maybe we can do that all this afternoon.

Mr. Field: It depends, of course, on the cross-examination, I guess.

Mr. Anderson: Does Your Honor usually like to have a written submission at the end of the thing?

The Court: Yes. You all said you would submit other findings after it was all over. You each submitted suggested findings in advance, but, of course, I suppose the situation changes some after all the testimony is in, your viewpoints of it. Maybe you would want to submit other briefs.

I want to be attentive to all that, but I would like to have a colloquy with you.

By Mr. Field:

Q. Now, Doctor, if you would address yourself to Defendant's Exhibit 97, and tell us what is shown there and the purpose of presenting this exhibit.

A. First, in the way of background, a utility receives revenues from its customers. Out of those revenues, it pays its expenses. Next it pays its taxes. It pays its interest on the bonded debt and its preferred dividends, and what it has left over we may call net income or net [T. X, 58] profit.

The success of a utility from the viewpoint of the shareholders and the fairness of a utility's rate is then judged primarily by how much is it able to make on its common stock.

The purpose of this exhibit is to show in the last column the rate in terms of percentages that Otter Tail Power Company has been able to earn on its common stock for the years 1947 to 1970.

The average for the period 1947 to 1969 was 11 percent. From 1965 to 1970 it was also 11 percent, and the individual figures are shown by reading down the column.

Now, in order to get a perspective as to whether or not these profits would appear to the financial community or even to rate payers and regulatory commissions as reasonable or unreasonable, I put in the first column what the Class A and

Class B electric utilities are earning in the United States. I might say, Your Honor, by the Class A and B electric utilities, we mean practically all the electric utilities in the United States that are so classified by the Federal Power Commission, and these data are data from the Federal Power Commission. They do not regulate except the wholesale business of these electric utilities, but most of them are regulated in the several states.

[T. X, 59] So we find at the bottom of the first column that these utilities earned from 1947 to 1969 11.1 percent on the average for this period. This means at least that in the opinion of the regulatory bodies all over the United States, these were fair rates of earnings.

I can't prove that they were fair in every case because that would require taking up the situation of every company that has ever had a rate case during all of this period. All these figures purport to show is that this is what the company actually did earn, and I repeat, they wouldn't be earning this amount unless, in view of the state and municipal regulatory agencies and the Federal Power Commission, these were reasonable rates of earnings.

I conclude from this, that Otter Tail's earnings have been in line with that of the rest of the electric utilities in the United States, and they have not, judged by these standards, been in any sense extraordinary or unfair or unduly high, but reasonable.

Now, in order to compare what utilities have been earning with what the industrial companies have been earning, I set forth in the next two columns what Moody's 125 Industrials earned for this period, and this shows the figure for 1947 to 1969 of 13.8 percent, and for the period 1965 to 1969, the last five years, 13.5 percent.

Standard and Poor's 425 Industrials, which includes [T. X, 60] more companies but is a wide sample of the industrial enterprise of this country, earned respectively 12.9 percent and 12.6 percent.

My conclusion, based upon these data and my general knowledge of the rate of return in the utility industry, is, therefore, that judged by all ordinary standards observed by economists and observed by regulatory bodies throughout the United States, Otter Tail Power Company has earned a reasonable rate of profit. It has not earned an unfair rate of profit. As has been indicated, its rate of profit has been regulated in North Dakota and it has followed the same policies regarding rates and charges in Minnesota and South Dakota.

One would expect, therefore, a fortiori, that the earnings would be pretty much the same, and this is what these data indicate.

Q. I suppose we are all sophisticated enough or think we are sophisticated enough, at least, to understand what Moody's 125 Industrials mean and what Standard and Poor's 425 Industrials mean. I don't want to go into any details about this, but for the record, would you indicate what that signifies, those items?

A. Yes, the list of Moody's 125 Industrials is shown in their manual and they keep records for what this aggregate of companies earn. The list of the 425 [T. X, 61] Industrials is also shown in Standard and Poor's manual, and if I were to make a generalization, I should say that between the two, they comprise the great bulk of important companies in the United States of America which were not selected to prove my point, but merely selected to be representative of American industry in general.

So that instead of saying Moody's 125 Industrials or Standard and Poor's 425 Industrials, if I were to use such a phrase that this is what the manufacturing industry earns in the United States, it would be very close to the truth, if I were to use such a phrase.

[T. X, 62] Q. Now, Dr. Morton, in general, have you considered the importance or lack of it of the general public interest in connection with the application of the rules of fair competition and the rules with reference to monopoly in connection with the issues that we have here in this case that you have been discussing?

A. The rules of fair competition generally imply that all competitors in the same field should be subject to the same rules. These rules are not always strictly observed.

As I have indicated, they have never been observed strictly historically because of favoritism of the sovereign. They have not been observed in the United States of America for the reason that the Congress of the United States has the right to alter the rules.

The Congress of the United States has a right to take the Missouri River water and to dam it up, and they have a right to tax the people of the United States to put dams on the Missouri River. They have the right and the policy of saying that only selected groups of people may get the benefit of this cheap electricity, and that is what they have done.

In that sense, competition is unfair insofar as special prices are given to selected preferred purchasers which other purchasers cannot get.

Second, these purchasers do not have to pay taxes that other purchasers must pay and the burdens which they [T. X, 63] escape are imposed upon other groups.

In a sense, competition is not strictly fair in this area, because it does not conform to the economist's conception of fair competition, whether it is for a matter of pure legal power, the power of Congress to levy taxes and to use money for whatever purpose they see fit and to give favorite prices to specific groups of people and to allow specific groups of people not to pay their fair proportion of taxes as considered by economists, but until this proceeding, Mr. Field, in all of my studies, I have never heard the theory proposed, as I have recently, that the rules of fair competition require a private business to use its own capital for the deliberate purpose of destroying itself and to wasting and dissipating that capital.

Moreover, I have never heard it proposed anywhere among economists that money raised by taxes or by the appropriation by other concerns should be handed over to specific communities in which they could use them in a wasteful and inefficient manner, such as I have found to be the truth in Elbow Lake, which is one of the towns referred to in these proceedings. This goes counter to anything that I know about economics, and if it is followed to its logical conclusion, it would mean the dissipation of the resources of this country, higher taxes, and further inflation. This would be imposed upon the nation under the theory that the [T. X, 64] antitrust laws compel a firm to aid this process of disintegration of the national economy and destruction of its own resources.

Q. Are these a part of the facts of life that are in existence and which Otter Tail finds itself in this picture that we have been discussing here?

A. They are the essential facts that are at the bottom of this whole proceeding. From an economist's point of view, when I read the legal briefs I have difficulty in finding out what the real issues are.

The real issues are that here are a group of people who want to take advantage of specially low prices for electricity to be furnished by the Bureau and they wish to use the facilities of a private company for that purpose, even though that destroys the properties of the private companies in the distribution business. Taking, for example, if a company was obliged to furnish to any town that wished to do so electricity at wholesale when it already has retail facilities there, that could be blackmailed to sell its property at practically any price above its salvage value, because it would be a question of bilateral bargaining and no one knows where you come out in that bilateral bargaining.

Elbow Lake, for example, if it were obliged to obtain electricity from whatever source it saw fit and Otter Tail were obliged to furnish Elbow Lake with electricity [T. X, 65] at wholesale, regardless of the effect upon itself, would be in a profoundly powerful bargaining position vis a vis Otter Tail. It could say, "We now have your electricity. You have your plants, but your franchise has expired. Get out of town."

The Court: Maybe we should get out for lunch right now. We will recess until 2:00.

(Whereupon an adjournment was taken until 2:00 o'clock P.M. June 14, 1971.)

[T. X, 66] (June 14, 1971, 2:00 o'clock P.M.)

(Appearances as heretofore noted.)

Whereupon,

WALTER A. MORTON,

a witness having been previously sworn, resumed the stand and testified further as follows:

The Court: Mr. Field.

Mr. Field: If Your Honor pleases, that concludes our direct examination of Dr. Morton.

The Court: Mr. Anderson.

CROSS-EXAMINATION

By Mr. Anderson:

Q. Dr. Morton, you were mentioning this morning that one of the difficulties in the Elbow Lake situation was as a result of its ouster, Otter Tail suffered an economic loss in that it was only able to get the salvage value, as I recall your testimony, from its facilities in the town?

A. That's correct.

Q. Do you recall, have you read the record in this case? Have you read the documents?

A. Well, I am not sure I read them all, but I did make a special study of this loss in Elbow Lake.

Q. Well, are you aware of the fact that the town of Elbow Lake asked Otter Tail if it was willing to sell its [T. X, 67] distribution facilities to the town?

A. I was not aware through reading any of the record what price Elbow Lake offered to pay, and to me as an economist, it's utterly meaningless to ask people to buy something unless you give them a price offer. I couldn't find any.

Q. Do you recall that the reason that it never reached the point of a price offer was because Otter Tail declined to discuss the matter?

A. Well, I think that was stated in the record, but I can't state whether that was or was not the fact; but that would be immaterial so far as I am concerned as an economist. An offer must always be an offer at a price, either an offer to buy or offer to sell has utterly no meaning unless it is at a price. I wouldn't waste my time discussing with anybody any offer unless he gave a price.

Q. There is not much point in getting involved in price if the other party doesn't even want to talk about it, is there?

A. There is no point talking unless there is a price.

Q. You are aware of the fact, I take it, that there are economists who do take the position that there are no important economies of scale at the distribution level?

A. I have heard language to that effect, but it's so absurd that I pay no attention to it.

[T. X, 68] Q. Are you aware of the fact that the New England Governors have commissioned a study of the electric power situation and that study recommends just that, that the distribution function be separated from the generation and transmission function and that the distribution function does not have any inherent economies of scale, are you aware of that?

A. If they hold to that view it's so utterly silly and absurd that I think it is utterly worthless, because I have lived in big cities myself and to say that if you had an electric distribution company in every single block in the cities the way you have grocery stores, which is required by the theory of competition, that there would be no economies of scale is to say that you could have 50,000 Commonwealth Edison distribution companies in Chicago and that there would be no economy of scale of Commonwealth Edison putting them together. That is just silly.

Q. Well, when you say that, are you assuming these distribution entities will also operate isolated generators?

A. No. Even if they had a common supply system.

For example, in the City of Chicago, or let's take St. Paul. Supposing you had a distribution company in every single block and there was a separate corporation and it had a separate board of directors, a separate president, separate general manager, vice-presidents, store, supplies, [T. X, 69] maintenance crews, to say that there would be no economies of

scale to integrate them into a system like Northern States Power to me is so utterly absurd I don't know what people are talking about who assert that to be true.

Q. Of course, you are taking it to the point of absurdity. In point of fact the way it works is that an entire city or town has one large distribution system for the entire area, that's the way it usually is, nobody talks about having one on each street corner.

A. But after all this is an economy of scale. Now, if what is being said is that at some present moment in some particular city there would not be economies of scale by making it bigger, that may or may not be true in accordance with the facts in that given situation.

For example, I can conceive that in a city like St. Paul there may not be any particular economies of scale if the Northern States Power takes on five percent more customers or sells five percent more electricity there may not be.

But to say that the Otter Tail system with 465 towns could be run just as economically with each town having its own corporation, its own board of directors, its own president, vice-president, general manager, is just an absurdity to me.

Q. That is right, and nobody is talking about that in [T. X, 70] this case, of course.

A. Well, I don't know what they are talking about. All I know is what you tell me, and all I know is some of the absurd things which I read, and they are just as absurd as what I have depicted to you.

Now, as for generation, having indefiniteness of scale, I must say that I am not an electrical engineer, but I know that even that cannot be established, you can't build these generators indefinitely bigger and bigger and have them produce electricity at lower and lower costs because you reach limits within which the economies of scale does not hold.

Q. In your opinion, would it be uneconomical for a municipality to set up an isolated generating system?

A. It depends on what kind it is. If it is the City of New York, that could be an isolated municipality, and it could probably set up just as good an independent generating system as Con Edison can.

Q. We are talking about—

A. But if you are talking about Elbow Lake or some of these 200 or 400 or even 1500-population cities in the Otter Tail system, I think it is uneconomical for them to set up independent generating systems.

Q. Now, looking at your exhibit DX-96, which is your study of credit impairment, do you base that credit [T. X, 71] impairment study in any way upon the erosion study which is contained in DX-41?

A. No. The erosion study exhibit shows what would happen in a given period of time in the past, assuming a given amount of erosion. I merely assumed that at the present time Otter Tail's credit would be impaired if it were compelled by law or if by its own action it followed the philosophy which would lead to erosion of its system and to the impairment of its credit. But the two figures are not functionally related. I picked the one percent out of the air just for illustrative purposes and to show that in my judgment, there would be appreciable erosion as a matter of fact.

Q. In your study of the investment community, did you detect any shudder in that community when Aurora and Colman left the Otter Tail system?

A. No, I didn't. I didn't study the investment community. But I assumed, as I said, that either this case is a lot of shadowboxing, utterly meaningless for practical purpose or it has some meaning and significance that the reason it's being pur-

sued is that it is anticipated that some utilities in the municipal areas may desire to take advantage of a ruling in this case compelling Otter Tail to serve wholesale or to wheel, and if that happens, then there will be a shudder in the financial communities, there will be [T. X, 72] immediate difficulty in floating additional bonds.

I went on the basic assumption that where there are such tremendous advantages that would accrue to municipalities in the way of taxes and purchase of underpriced power and the ultimate ability to rely on Otter Tail to bail them out of their difficulties, that there would be a tendency for these events to take place.

Q. In your judgment, how many towns would have to leave before the credit actually became impaired?

A. I don't think it would depend so much on the number of towns. It would depend upon the philosophy of operation which was adopted and the legal environment under which Otter Tail was obliged to operate. If it were clearly settled that Otter Tail could be compelled to use its own facilities to destroy the value of its distribution system, then it would be apparent that at the utmost, one-third of Otter Tail's total investment would be in danger of becoming greatly impaired if not ultimately worthless and the investment community would immediately take that into account.

However, if they believed that this whole proceeding and all of the agitation was just a lot of shadowboxing and a lot of noise and wasn't intended to have any real effect on the operation in that part of the country, then people might just laugh at it as some sort of a [T. X, 73] political joke of some kind. But if they didn't think it was a political joke, if they thought there was a serious conviction that a utility was bound by the antitrust laws to operate as if it were operating under

competition, and that in so operating under competition it was obliged by law to use its own resources to destroy itself, the credit impairment would be immediate and significant.

Q. Would you agree that a one percent credit impairment would, looking at the Moody ratings, translate into a rather substantial drop in the bond rating? How much would the one percent impairment, translated into using the Otter Tail bond rating as I think the record shows it's Baa, with a one percent credit impairment, where would it be?

A. Well, it probably wouldn't change the actual rating because they usually do not rate utility bonds below Baa, but it would probably result in a shying away from the purchase of the issue. Moody's is very hesitant to rate utility bonds below Baa. But I might say, Mr. Anderson, these ratings are made by Moody's for the guidance of the bond buyers and the bond buyers may downgrade a bond even when Moody's do not do so.

Q. Let me ask you a question I have asked other people here.

After your long years of study in the field of public utilities and economics, I assume you have some sort [T. X, 74] of a working definition of the term "public utility responsibility." Would I be correct in that assumption?

A. I think so.

Q. How would you define it?

A. Public utility responsibility is to furnish adequate service to the people in the territory which has been assigned to that public utility to serve at reasonable rates, charges, prices and rate of return, and this public utility responsibility is usually administered by an administrative body which is an agency of the legislature, namely, a public service commission or the Federal Power Commission, which is an agency of the government of the United States.

Q. Supposing you have a group of people in a town who decide they want to set up a wholesale system and want to buy the power from Otter Tail. Could Otter Tail say no and still remain consistent with the notion of public utility responsibility?

A. In my opinion, if any group of people on the Otter Tail system wished to buy the local distribution system, they are certainly entitled under law to do so by condemning that system under the principle of eminent domain and paying the fair value for that system, plus severance charges. This is, in fact, the actual law in a great many states of this Union, where utilities are not [T. X, 75] fearful of disposition or expropriation by action of the local communities because they know the local communities must reimburse them by paying the fair value of the properties that they take over.

Q. I don't think you have answered my question. I was talking about public utility responsibility. I was asking whether a refusal to sell at wholesale could conceivably be considered as being consistent with public utility responsibility?

A. If the law requires them to sell at wholesale, then a refusal to sell at wholesale would be an avoidance of their responsibility and could be quickly remedied by an order of the Public Service Commission. Ordinarily, no utility refuses to sell at wholesale unless, as in the case of Otter Tail, there is a peculiarly significant reason why they do not do so, namely that it would destroy their retail distribution business.

[T. X, 76] You see if Otter Tail were to sell to every town at wholesale and that town could simply end Otter Tail's charges and buy up its property through bilateral bargaining at virtually its salvage value less cost of removal, and this would only be a fraction of the millions of dollars invested in that property. So Otter Tail has to make some effort to pre-

serve the value of its distribution property. That does not have to be made in states where the law would require that anyone who wished to take over a utility property must move by means of eminent domain to take it over and to pay the fair value of that property as determined by the courts.

Q. So your position, I take it, is that Otter Tail ought to be able to retain as retail customers all the towns it presently serves in perpetuity?

A. No. That is not my position. I am simply saying that if someone else wants to put in a system to replace Otter Tail and take over its retail customers, Otter Tail has that exposure under law to whatever loss it may suffer as a result of such action.

However, Otter Tail does not have the obligation to use its own facilities to destroy its own business and that is where I draw the line.

Q. Destroy its own retail business in that town?

A. Yes.

Q. Not—

[T. X, 77] A. It does not have the obligation to use any of its own facilities to destroy any of its own business any more than the Hilton Hotel in which you and I are staying now has the obligation to use any of the rooms of that hotel for the purpose of destroying its hotel business.

Q. Do you recall having testified in a so-called Gainesville case?

A. Yes.

Q. On behalf of Florida Power Company?

A. Yes, sir.

Q. And would it be accurate for me to say that in paraphrasing your argument there, that it was your position that in order—that as a condition to the grant of an interconnec-

tion by the FPC, there ought to be attached some sort of a territorial agreement between Florida Power and Gainesville?

A. Yes, sir. In order to prevent duplication of services as wasteful and as costly to the consumers and to the company.

Q. What did the Federal Power Commission say about that?

Mr. Field: Well, if the Court please, it doesn't seem to me that this has any relevancy and certainly nothing by way of impeachment to show if counsel's question is the import that it apparently does, that he [T. X, 78] testified in the case that some court didn't agree with him on the point he was making. It doesn't seem to me that is material.

The Court: Tell us. Did they go for it? Did they agree with your testimony?

The Witness: No.

By Mr. Anderson:

Q. And neither did the Supreme Court?

Mr. Field: Same objection.

The Court: You may answer.

The Witness: I don't know whether the court ruled on that specific issue.

Mr. Anderson: That's all I have, Your Honor.

Mr. Field: I think, Your Honor, my personal notion is we have no redirect. Perhaps I could confer with my associates and see if we are unanimous in that view.

The Court: All right.

Mr. Field: May I confer with the witness?

The Court: Yes.

Mr. Field: We have no redirect.

The Court: You may step down. Thank you, Doctor.

[T. X, 79] (Witness excused.)

Mr. Anderson: Just a minor housekeeping detail. We have these two lists of exhibits that we used a long time ago to identify the documents that we were introducing. I think it might be useful if I had these marked as exhibits and then they would be with the documents and would help indicate what was in the record.

I would like to have first one which covers GX-1 through GX-294 marked as GX-446.

(GX-446 marked for identification.)

The Court: Madam Clerk is giving some intelligence here that may be helpful in keeping the record straight.

The Clerk: I have made these copies and made list number 1 and list number 2.

Mr. Anderson: That probably solves the problem.

The Court: It's okay with me as long as list number 1 corresponds to what exhibit number?

The Clerk: It goes from 1 through 294.

Mr. Anderson: Yes.

The Clerk: And the other list 374 through 434, that includes the ones that weren't received.

[T. X, 80] Mr. Anderson: GX-447 will be the second list and we have made notations on that list showing the proposed exhibits which were rejected.

(GX-447 marked for identification.)

The Court: That may be helpful to keep them together.

The Court: Absent objection those two exhibits may be received then.

Mr. Field; Let's see if Mr. Lundeen has some thought on that. He has been helpful in keeping these things straight. When Mr. Lundeen is free I was wondering if we need any help with our exhibits in our listing and so forth. We haven't had a clerical force to make listings with. There doesn't seem

to be any problem that hasn't been solved. I have something left over.

The Court: Well, those exhibits may be received then, those two that he had marked.

Mr. Field: I have no objection to the additional list. That's all they are.

The Court: They may be received.

(GX Exhibits 446 and 447 offered and received in evidence.)

Mr. Field: And the clerk advises me she has a list of our exhibits which is very nice of her [T. X, 81] to keep for us and I am getting a copy of that from her for our purposes so I guess housekeeping in that department is pretty well taken care of.

I have something left over from last week that I didn't suggest this morning because I wanted to go ahead with Dr. Morton's testimony.

We left off with Mr. Nye with some question about the number of towns served by cooperatives.

Mr. Anderson: Served at retail.

Mr. Field: At retail, right. It seems there are 105 and we have made a list which we have here. I just don't know how to handle it except you said maybe counsel could do something between them and this is what we have done, at least my helpers have done. Should we furnish you a copy and mark it as an exhibit?

Mr. Anderson: What does the number on the side stand for?

Mr. Field: That's the zip code of the town. It's not the population. It's the zip code.

(Defendant's Exhibit 98 marked for identification.)

Mr. Field: We offer it in evidence.

(Defendant's Exhibit 98 offered in evidence.)

[T. X, 82] Mr. Anderson: No objection.

The Court: Exhibit 98 may be received.

(Defendant's Exhibit 98 received in evidence.)

The Court: This is what, a list of the towns in the area served by coops?

Mr. Field: Electric retail sales by rural electric cooperatives in towns in the Federal Power Commission supply area 26.

The Court: The total what?

Mr. Field: 105. That completes our case, Your Honor.

The Court: You rest?

Mr. Field: Yes.

The Court: Do you rest?

Mr. Anderson: Yes.

The Court: What is your wish about filing proposed findings of fact, conclusions of law and briefs? Do you care to do so?

Mr. Field: I suppose we have to take turns here. Do you want to start in.

Mr. Anderson: Go ahead.

Mr. Field: Do you want me to?

Mr. Anderson: I will go ahead. [T. X, 83] I think it might be useful at the very least to have proposed findings of fact redone to conform to what we have done here at the trial.

The Court: And documented by exhibit numbers.

Mr. Anderson: Right. I think that would be of help to the court and we would be more than happy to do that. Usually when we do that we have, I mean we have conclusions of law, usually we tack on a little discussion of the legal principles. I don't know whether we need do that here. If Your Honor would like we would be more than happy to do that too.

The Court: All right.

Mr. Anderson: My only passionate plea at this point is that these things not be due on Friday or real soon.

The Court: We'll give you a week if you want—when do you want to get it in, Mr. Anderson?

Mr. Anderson: Would the Court view it as an outrage if we asked for a month?

The Court: Would you want to file time simultaneously? I think if you file simultaneously it would be all right.

Mr. Anderson: That's all right [T. X, 84] with us.

The Court: Then give you another couple of weeks on each side to respond. The thought would be that within a month you each file proposed findings and fact, conclusions of law and a brief, and then have another two weeks to have reply briefs. How does that sound to you, Mr. Field?

(The balance of the proceedings are contained in Volume X-A.)